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★ Prices! Even the newest architect busy designing Aunt Ermyntrude's dream cottage disregards them at his peril. No matter whether it is Aunt E. or the Committee of the Conservative Club way back in 1843, the client likes to know what the building is going to cost. Nowadays, of course, the quantity surveyor makes the mystic calculations (usually on the back of the menu), but the wise architect keeps in touch with costs and prices, and does this most easily by studying current form in 'The Builder'. From the word 'go' (and that's some time back) 'The Builder' made a habit of publishing full lists of tenders for important buildings. Fifty years ago it broke fresh ground by printing weekly prices of materials and wage rates, following this by giving a comprehensive section of Measured Rates for building work. Even today Governmental departments use and recognise these rates; they are acknowledged as the most authoritative in the industry.

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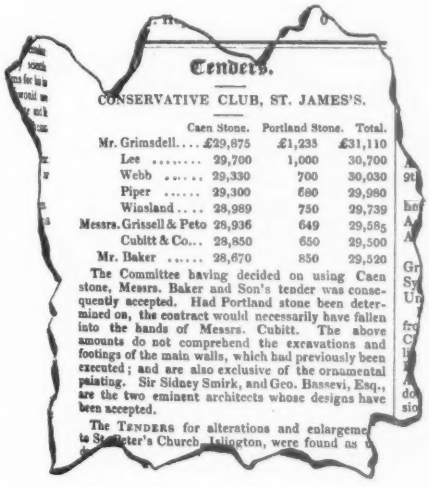

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Mr. Grimsdell....	£29,675	£1,235	£31,110
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Webb	29,330	700	30,030
Piper	29,300	680	29,980
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Messrs. Grissell & Peto	28,936	649	29,585
Cubitt & Co...	28,850	650	29,500
Mr. Baker	28,670	850	29,520

The Committee having decided on using Caen stone, Messrs. Baker and Son's tender was consequently accepted. Had Portland stone been determined on, the contract would necessarily have fallen into the hands of Messrs. Cubitt. The above amounts do not comprehend the excavations and footings of the main walls, which had previously been executed; and are also exclusive of the ornamental painting. Sir Sidney Smirk, and Geo. Bassevi, Esq., are the two eminent architects whose designs have been accepted.

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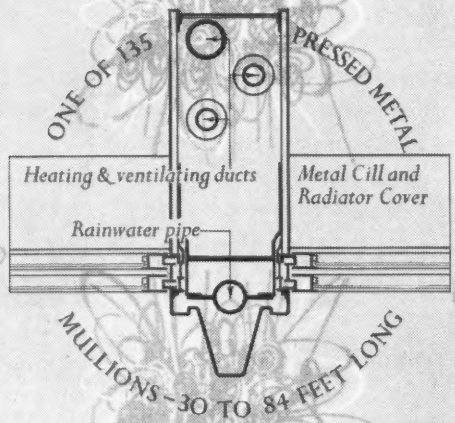

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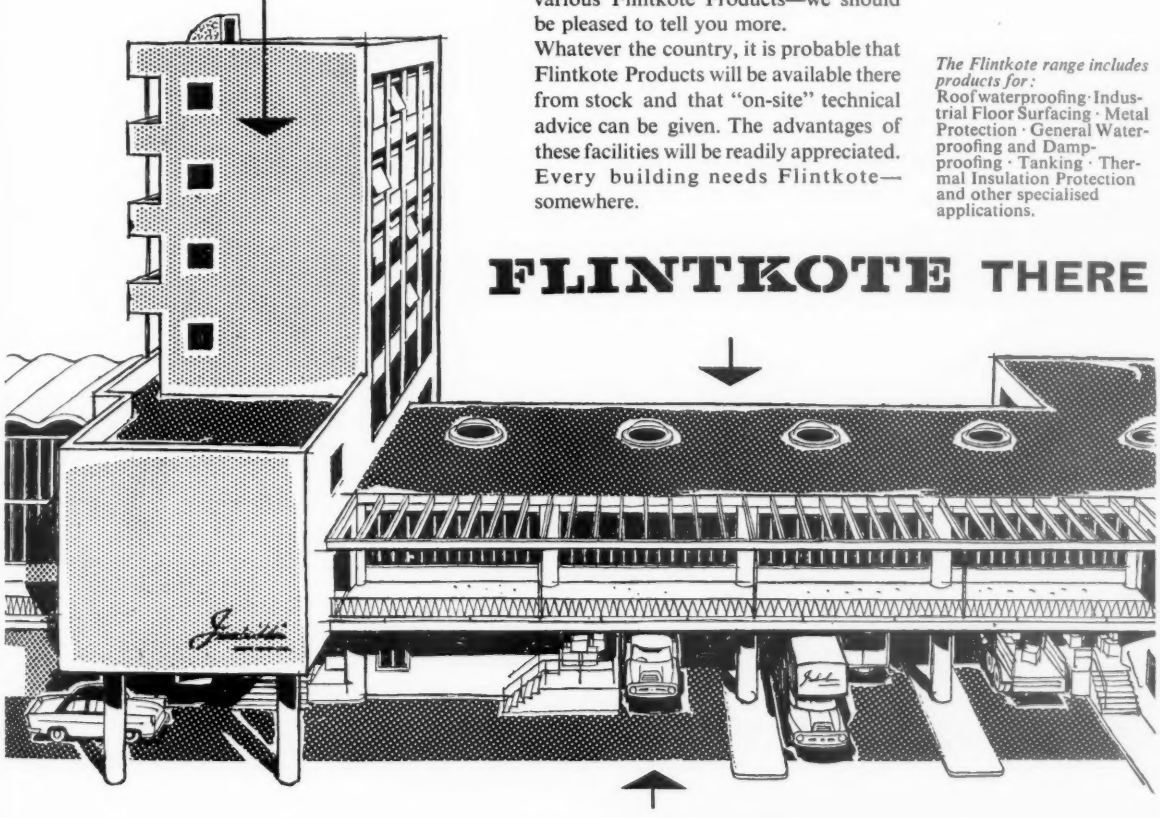

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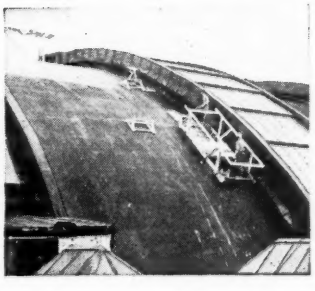

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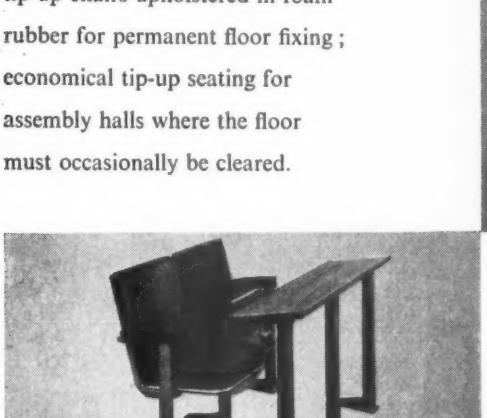

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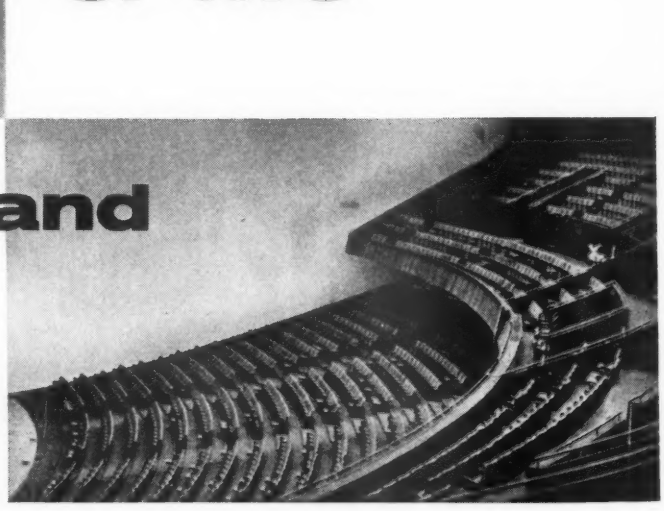

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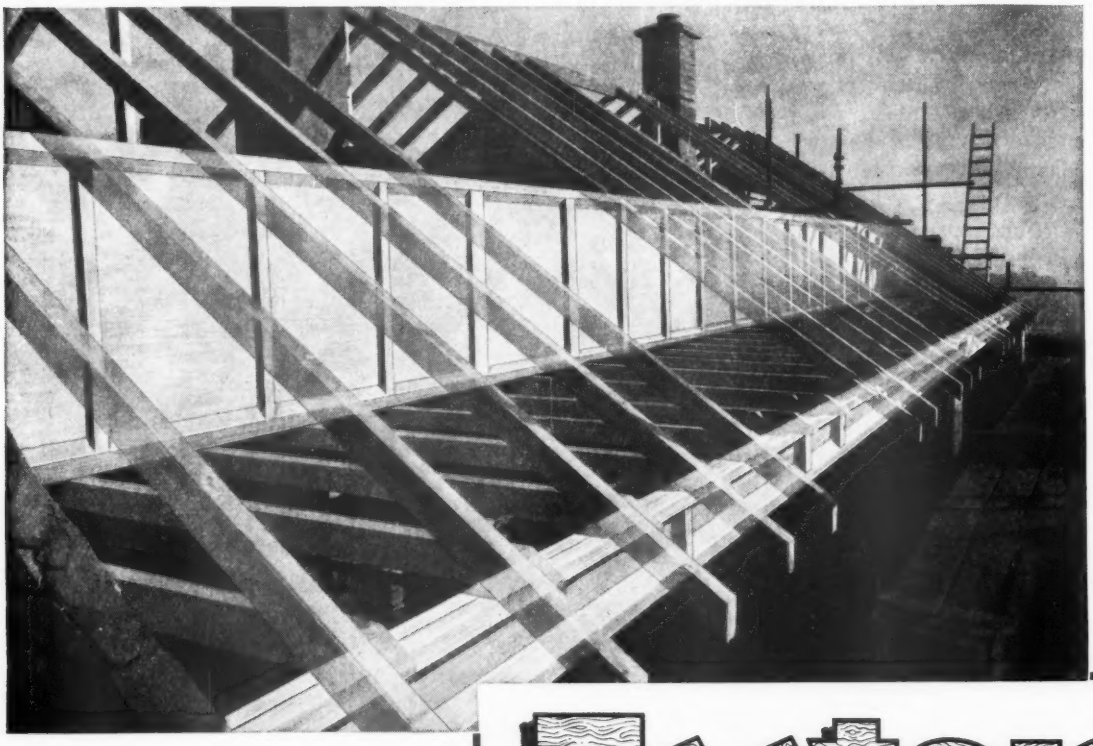

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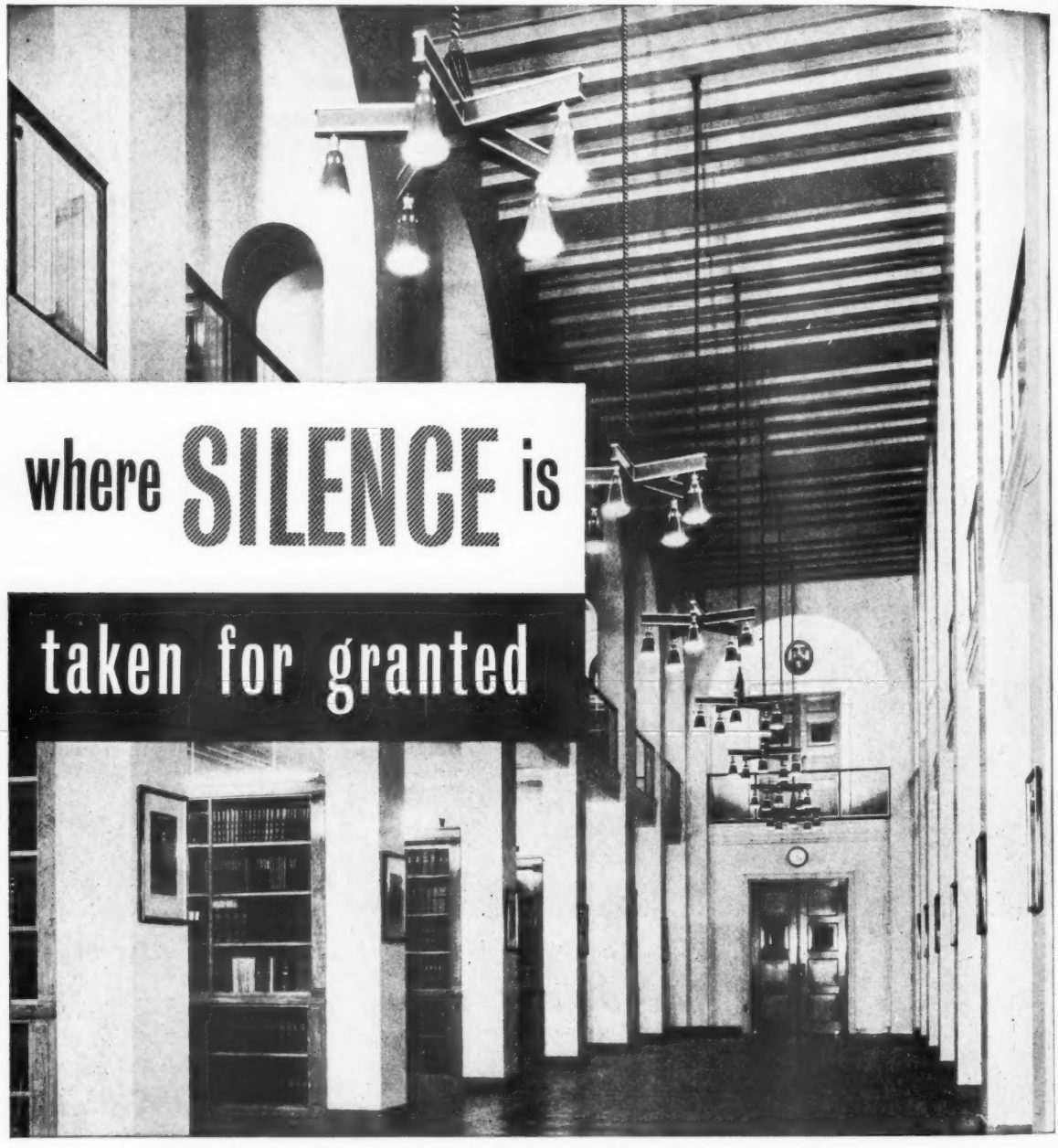

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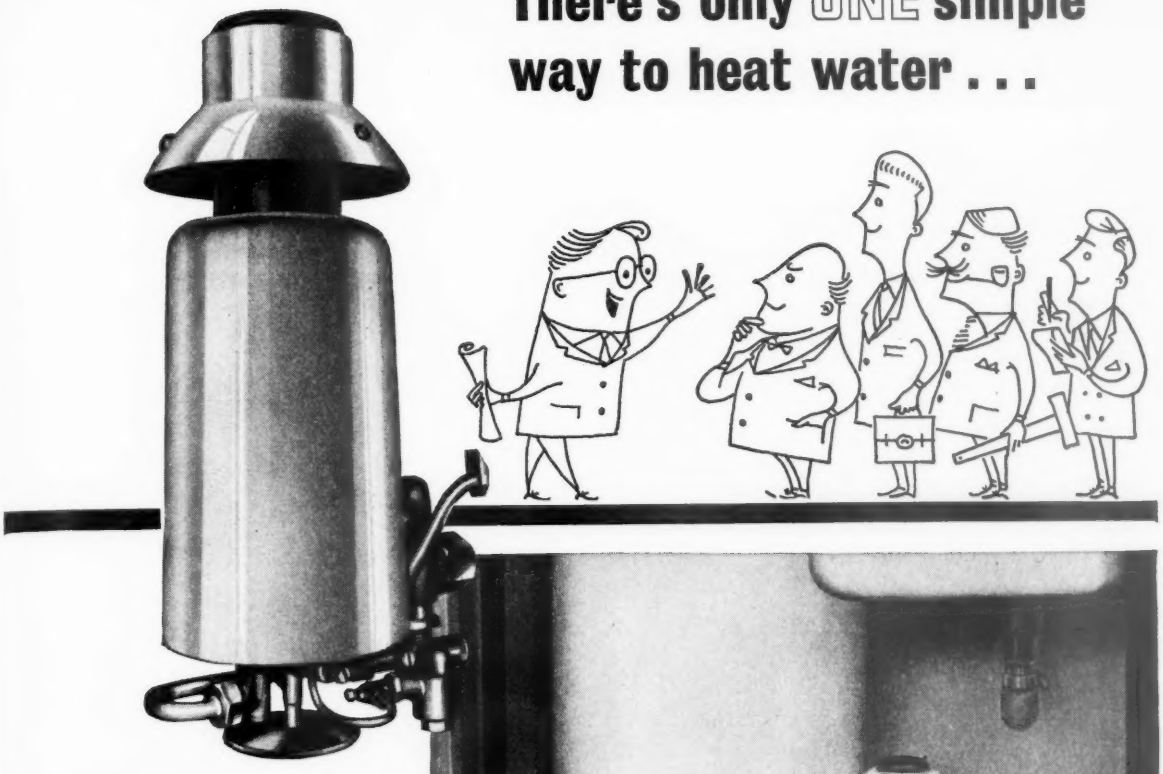

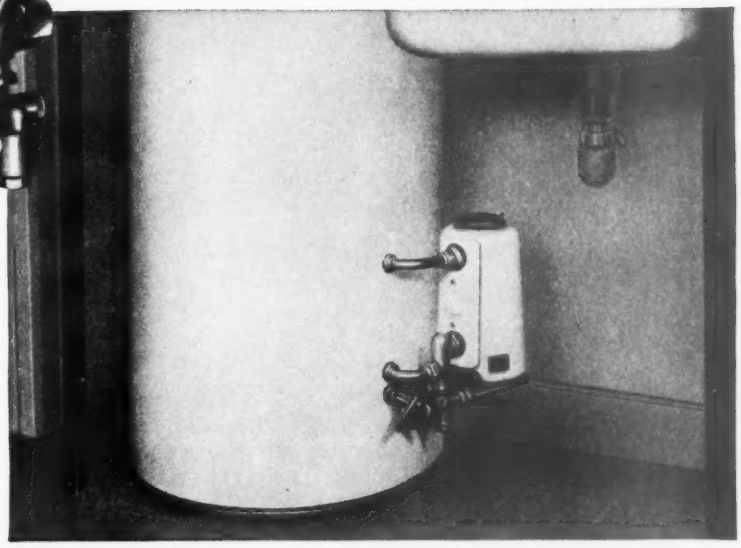

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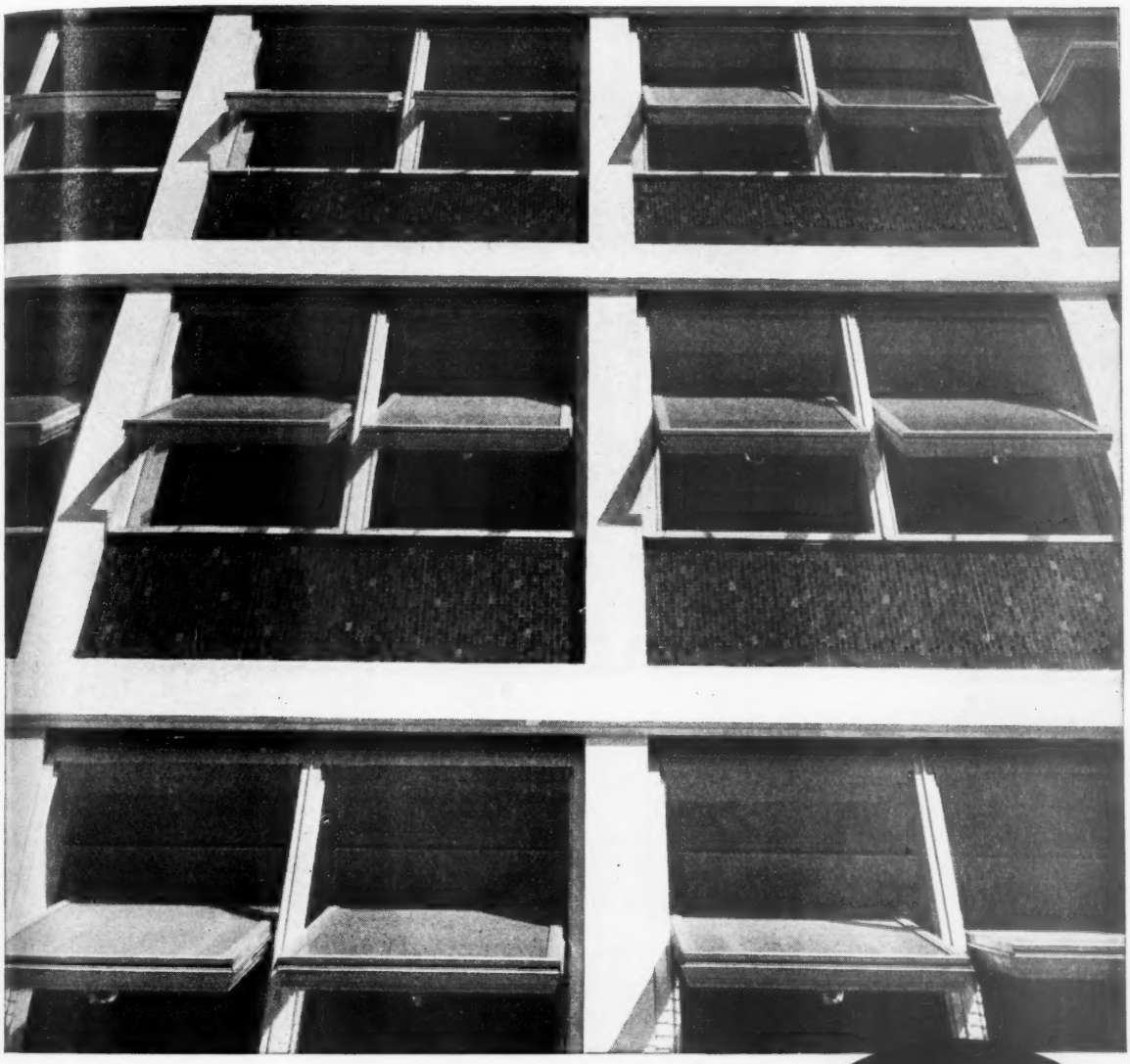

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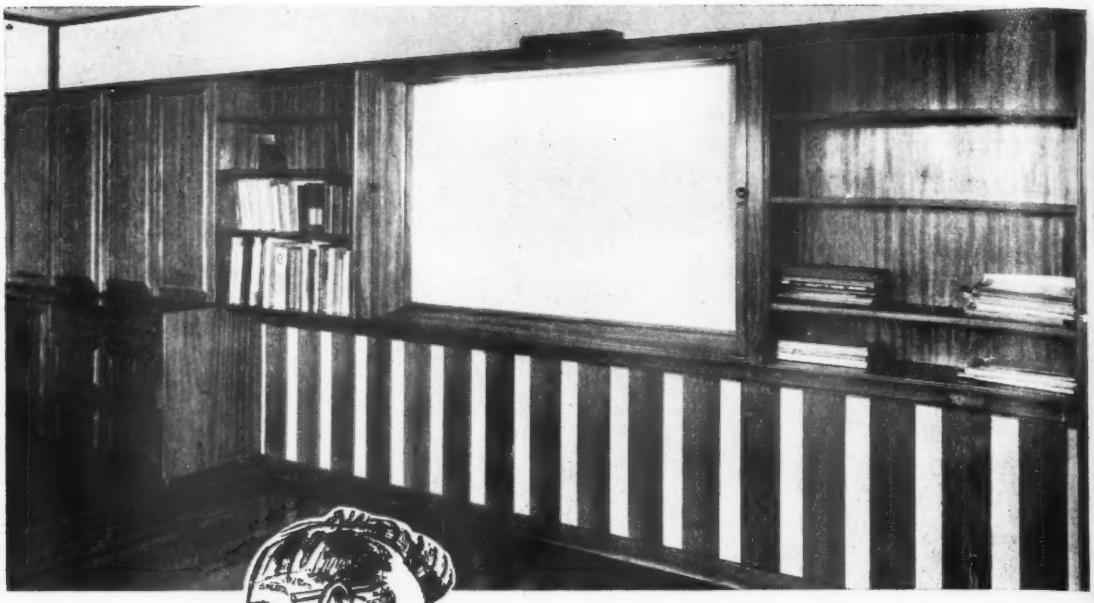

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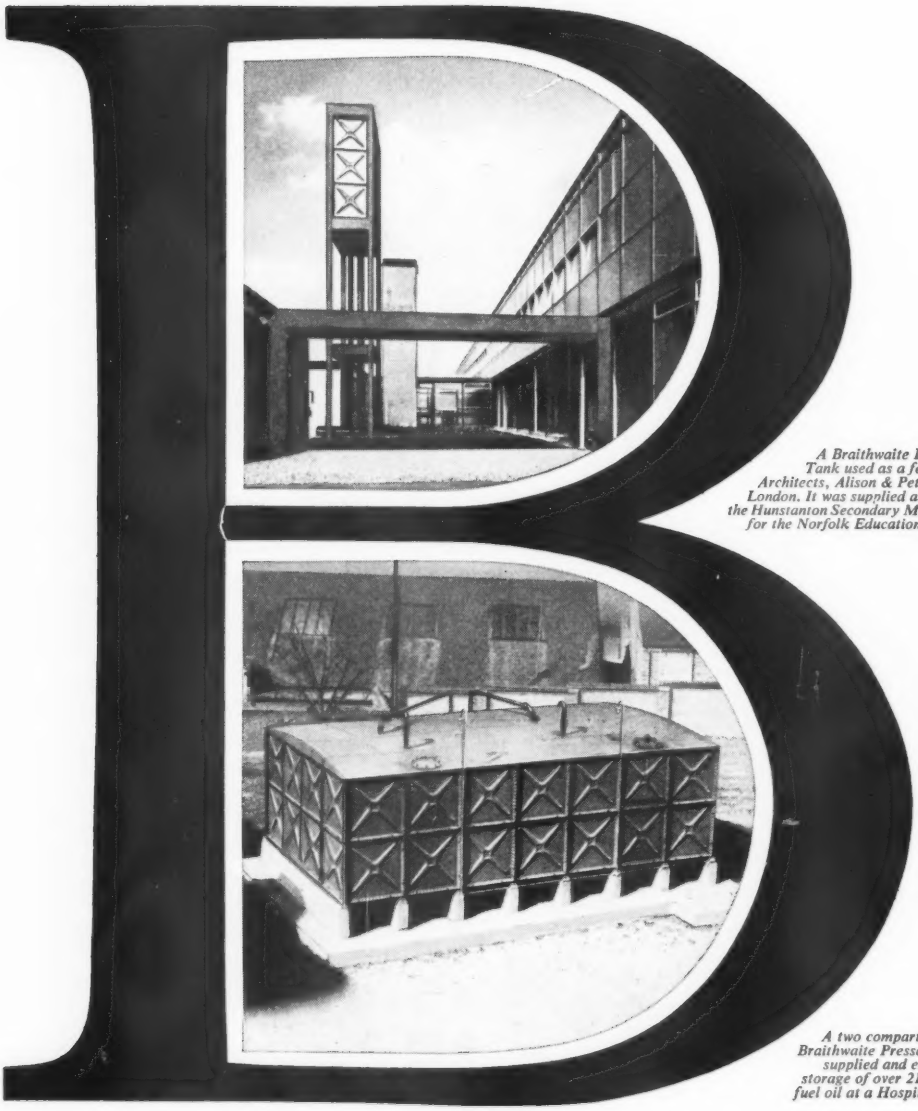

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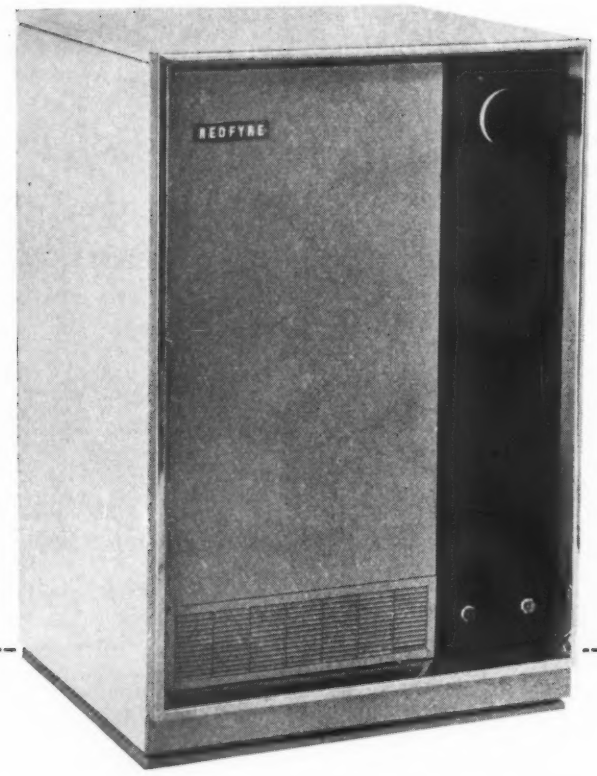

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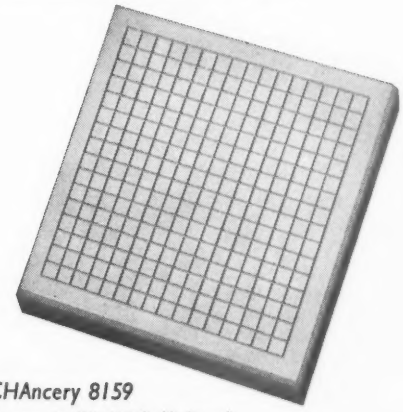

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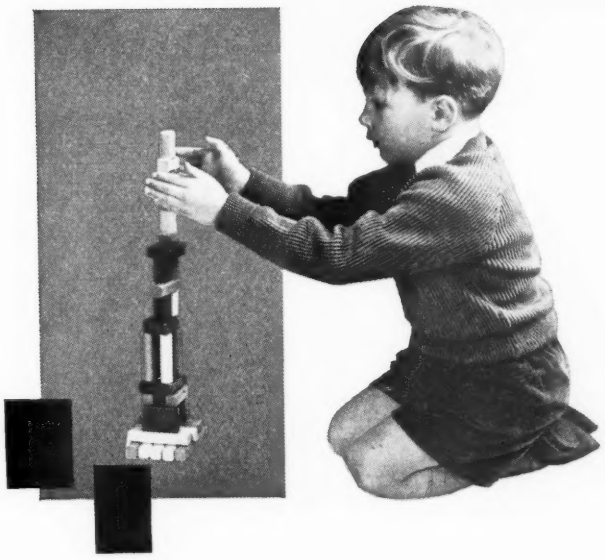

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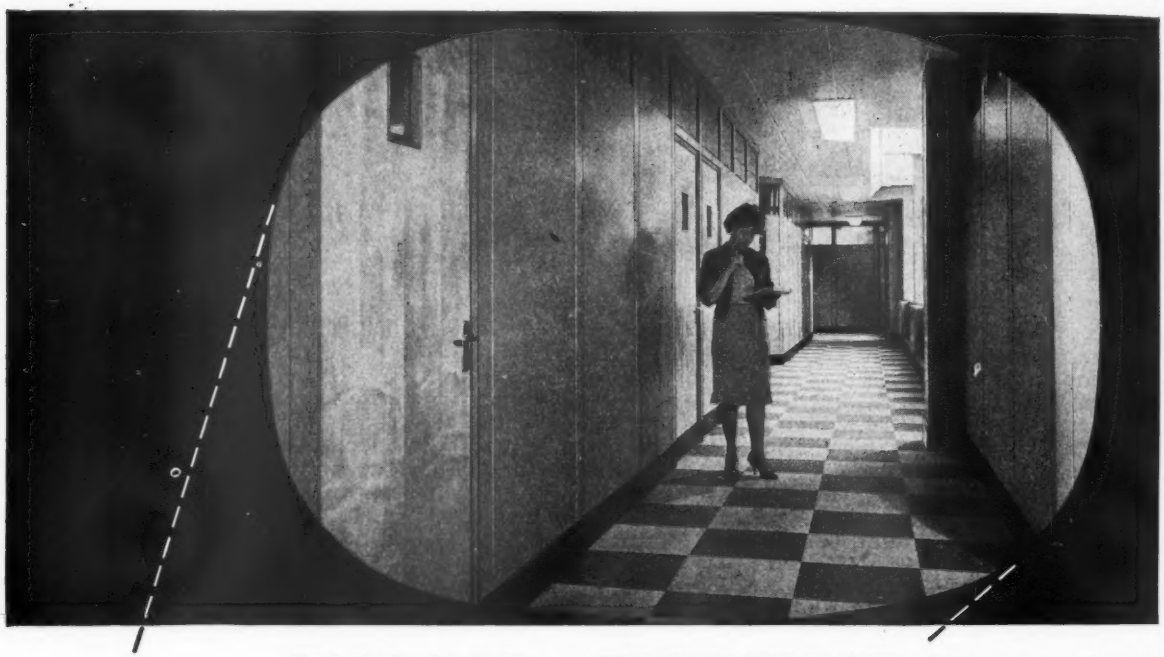

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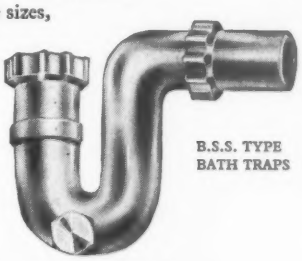

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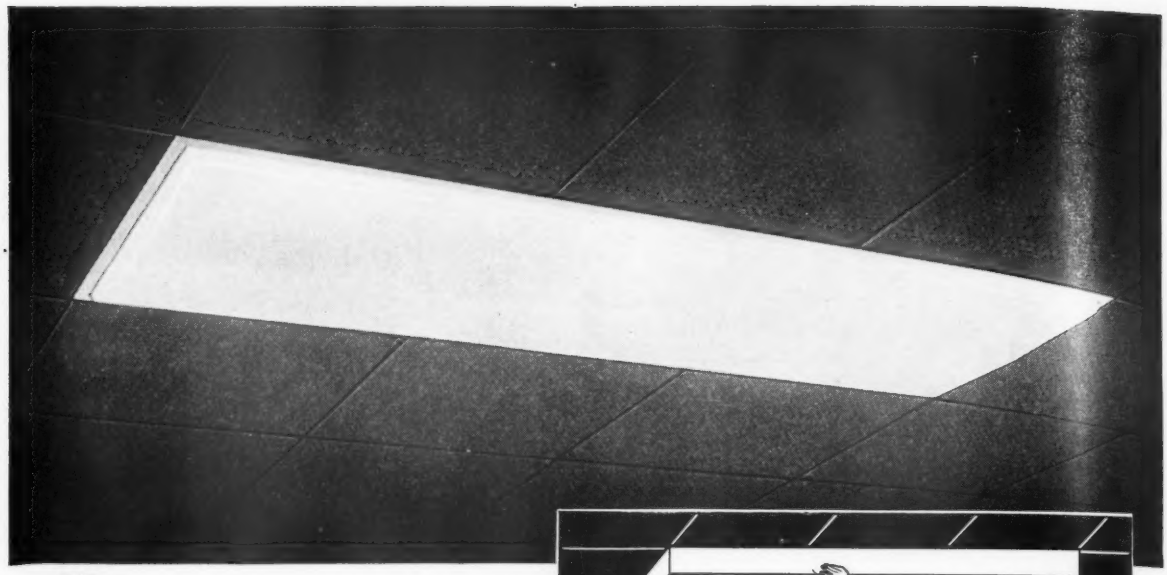

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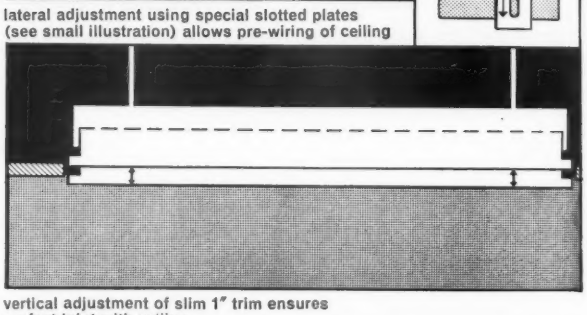
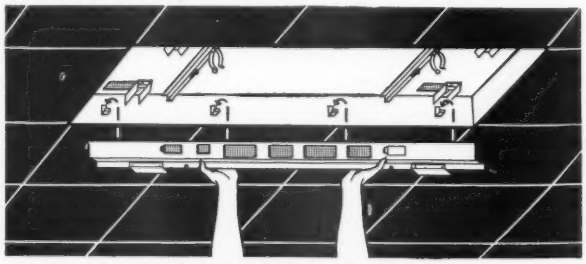
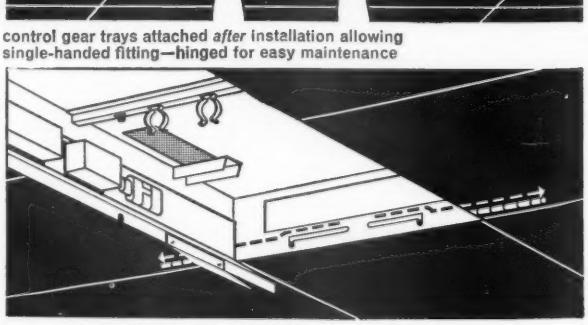
✳ lateral adjustment using special slotted plates (see small illustration) allows pre-wiring of ceiling



✳ vertical adjustment of slim 1" trim ensures perfect joint with ceiling



✳ control gear trays attached *after* installation allowing single-handed fitting—**hinged** for easy maintenance



✳ fits all types of ceiling and suspends from either true or false ceiling

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* *plus 2/- to 6/- a week maintenance cost.*

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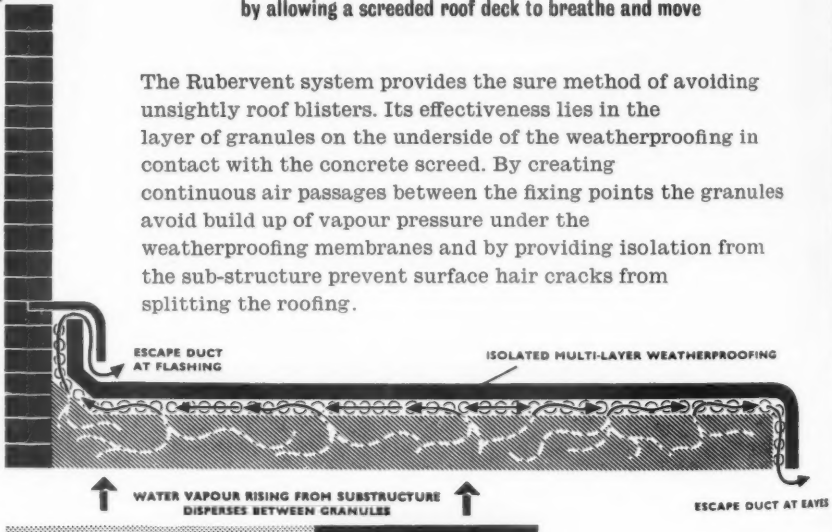
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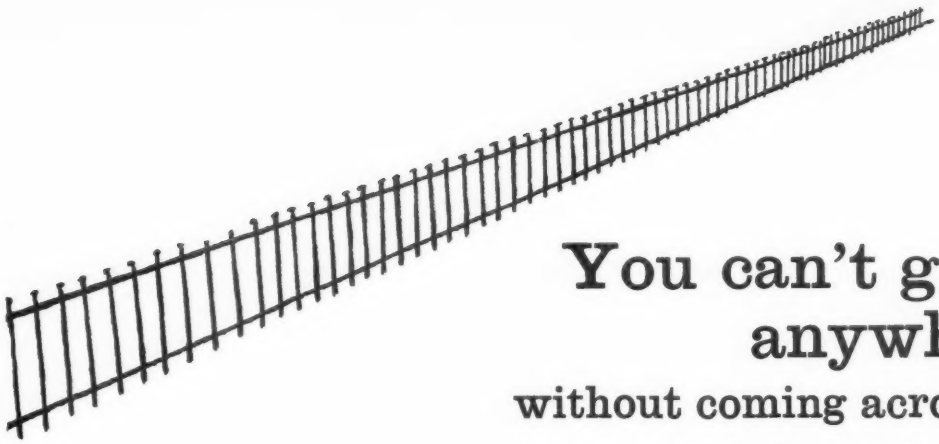

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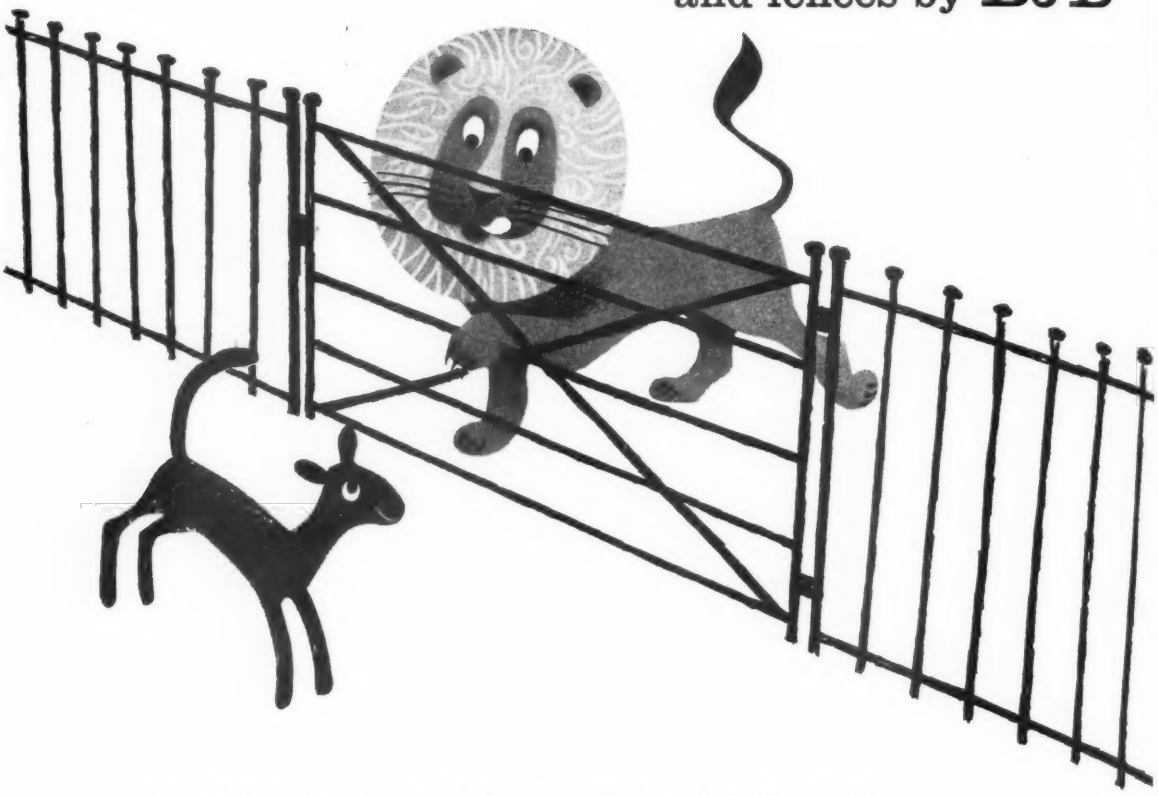

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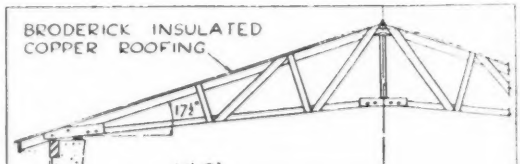

Details of scissor trussed rafters over nave and sanctuary. All timbers were tanalised before assembly.

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May 1960
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Changes in the Journal

Perhaps the most important proposal made by the Committee appointed to review the JOURNAL, and endorsed by the Council, was that there should be a leading article each month.

From time to time statements on RIBA policy have appeared in the body of the JOURNAL; the most recent of them the 'First Comments on the Report of the Royal Commission on Doctors' and Dentists' Remuneration'. From now on statements of this sort will appear as unsigned leading articles, and it is hoped that by focusing attention in this way, it will communicate a stronger sense of leadership stemming from Portland Place.

There was considerable discussion as to whether such articles need remain unsigned, following precedent. Establishment views, it was argued, would tend to be equivocal, bearing in mind that the RIBA would be obliged to stand by anything printed in the leading article of its official organ. There is certainly the risk of that, although I hope that vigorous and clear-cut views will not be excluded.

At the present time when almost every facet of the profession is undergoing examination and reappraisal, we architects are beginning to deploy to meet the new situations so brilliantly outlined in three papers given recently at the RIBA. I refer to those by Mr. William Allen, Dr. Doxiadis and Mr. Peter Trench. There is enough surely in these papers alone to provide editorial comment for several months.

I am glad that it has been found possible to pay for the JOURNAL to be sent out flat instead of rolled. We have all wanted this. The paper on which it is printed has lost its sere look and is of better quality, and the new size conforms to other RIBA publications so that pages torn from the JOURNAL may be filed with other A4 size documents.

The new cover has been designed by the RIBA typographer, Mr. Herbert Spencer. Again there was difference of opinion as to whether for the journal of a learned profession it was sufficiently in character. It does, however, express the new spirit at Portland Place, and allows for variations each month.

I therefore hope that the changes in format will meet with the approval of the majority of members both at home and overseas and that the JOURNAL will play its dual role of helping to unite the profession on fundamentals, while providing individual members with an opportunity to express their views freely.

BASIL SPENCE
President

RIBA Topics

Honour for the President RIBA and Mr. Spragg

Mr. Basil Spence, OBE, TD, RA, ARSA, and Mr. C. D. Spragg, CBE [*Hon. A*], have been elected Honorary Members of the Institute of Northern Rhodesian Architects.

Visit of Professor Nervi

During his visit to this country to receive the Royal Gold Medal on 5 April, Professor Nervi was also entertained by the Italian Institute, the Anglo-Italian Society and the Cement and Concrete Association who have done so much to make his work known over here, and who arranged the fine exhibition in the Henry Florence Hall which formed the background to the RIBA reception held in his honour on 7 April. The following evening Professor Nervi attended the AA Annual Reception, and on 11 April went up to Liverpool where he was the guest of the Liverpool University School of Architecture and the Liverpool Architectural Society – his only engagement outside London.

RIBA Orientation Course: Hospitals

Inserted in this issue of the JOURNAL is a programme and application form for the Hospitals course which is to be held from Monday 11 July to Friday 15 July. The course will be followed by optional visits to Copenhagen or Rotterdam on the Saturday and to the Oxford Region, where it will be possible to see the new Princess Margaret Hospital at Swindon which is illustrated on the cover (X-ray Department and temporary ward block).

This hospital when completed will be a 600-bed general hospital. It was designed by Messrs. Powell and Moya [*FF*] in consultation with Mr. R. Llewelyn Davies [*F*] for the Oxford Regional Hospital Board, whose architect is Mr. W. J. Jobson [*F*].

RIBA Kalendar 1960–1

As members will have read in the April issue of the JOURNAL, we are asking all those who will require a copy of the 1960–1 Kalendar, which will be published in October, to return the postcard which is enclosed with this issue.

As some members may prefer a copy with a stiff cover provision has been made for this at an additional charge of 5*s*. *which must be sent with the postcard.*

The postcard should be returned as soon as possible, but in any case not later than 31 May (overseas members by 30 June).

The Attitude of Building Societies to Modern Architecture

There has been considerable difference of opinion since the war on what this attitude has been. How many 'modern' houses have been regarded by the building societies as poor risks? How many of such houses have in fact proved unsaleable? Some statistics would be necessary before a true picture could be formed.

A statement from the Chairman of the Public Relations Committee of the Building Societies Association appears in this issue, and includes the suggestion that the architect should approach a building society at a very early stage in any new project.

This procedure would probably result in a number of successful negotiations where a certain amount of give-and-take was sufficient for a workable compromise, but until enough are reported it cannot yet be known in how many cases the gap is too wide to be closed by this method.

In the meantime, we wish to draw the attention of members practising in this field to the statement, and would be glad to hear from them what their experiences are when the procedure suggested by Mr. Osborn is tried.

Council Business

The Council met on 5 April with the President, Mr. Basil Spence, in the chair.

Quarterly Survey of New Commissions for Private Architects. In his progress report the Secretary said that the value of new work commissioned of private architects in the fourth quarter of 1959 increased substantially, being one-fifth greater than in the previous quarter, and over 40 per cent greater than the value of work commissioned in the corresponding quarter of 1958. This increase was pretty evenly spread over large and small practices.

Copies of the results of this survey, showing the trends of new commissions in practices in six regions of England and in Scotland and Wales (combined) have been sent to RIBA representatives in the Ministry of Works Regional Joint Committees. It is hoped that the information will be useful as background to the discussion of regional trends in the building industry.

More than 400 firms of private architects are now contributing regularly to the inquiry. In order to keep the sample up to date and representative of private practice as a whole, it is proposed to ask architects who are newly established in private practice since the inquiry was first started in 1958 to join in. The opportunity will be taken to ask a few questions relating to the problems of the architect starting in practice on his own.

The Council's Nominee for the Presidency. The Council agreed with acclamation the nomination of Professor Sir William Holford [*F*] for the Presidency.

Competition by Tender. After discussion it was agreed that the practice known as 'competition by tender' should be further considered by a special committee of representatives from the Competitions Committee, the Practice Committee and the Design and Planning Committee as a matter of urgency.

Town Planning Joint Examination Board. On the recommendation of the Board of Architectural Education, the Council agreed with the suggestion that the Town Planning Joint Examination Board should now be dissolved. This Board was established in 1930 and consists of representatives of the RIBA (two), the RICS the Institution of Civil Engineers, the Institution of Municipal Engineers and the Town Planning Institute. The original purpose of the Board was to secure a uniform standard of qualification for all those practising any branch of planning. The number of candidates now coming forward for examination from bodies other than the TPI has steadily declined and is now negligible. The Board has consequently suggested that it should now be dissolved and that the Town Planning Institute should in future conduct its own examinations.

ARCUK

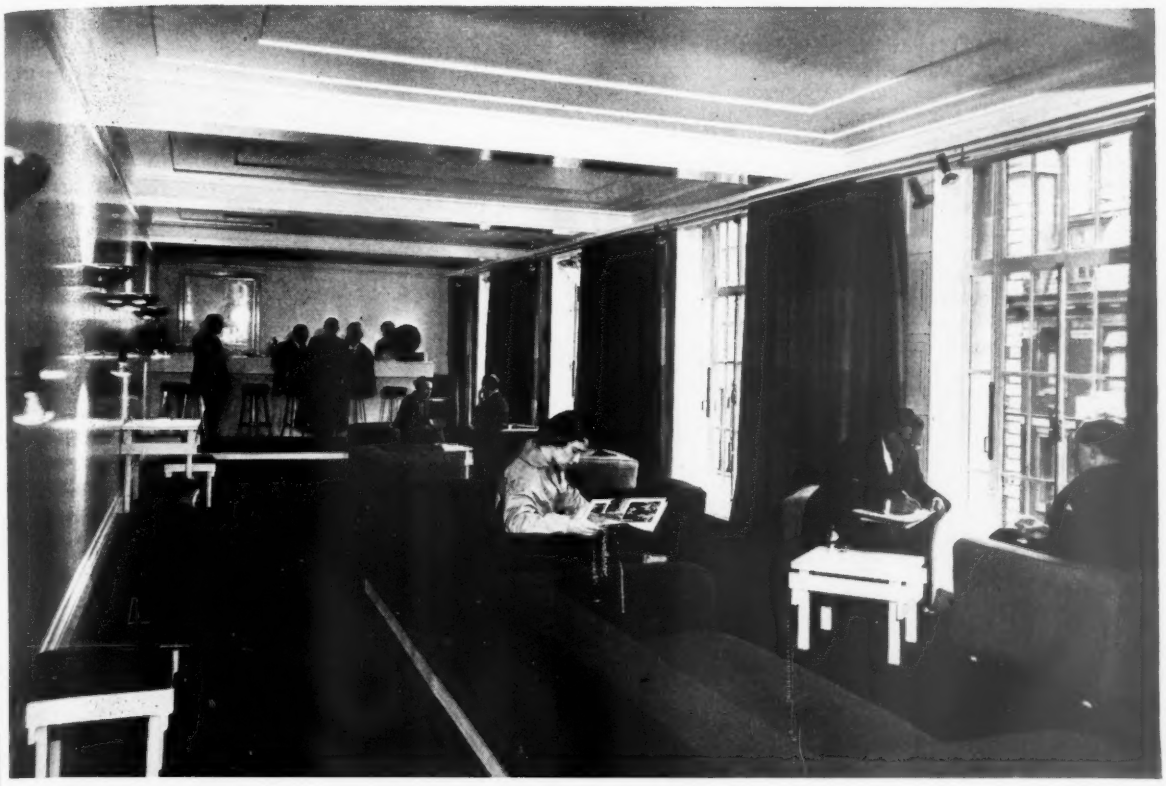
Mr. A. G. Sheppard Fidler [*Vice-President*] has been elected Chairman of the Architects' Registration Council of the United Kingdom in succession to Mr. Howard V. Lobb, CBE [*F*].

Architecture Today Exhibition

The RIBA and the Arts Council are arranging a selective exhibition showing the work of British registered architects at The Arts Council Gallery in 1961. The Selection Committee will consist of: The Hon. Lionel Brett [*F*], Sir Hugh Casson, RDI [*F*], Mr. John Killick [*A*], Mr. John Piper [*Hon. A*] and Mr. J. M. Richards, CBE [*A*].

Full particulars and conditions of entry are given on page 246.

Facing page: The RIBA clubroom and bar, open to members and students between the hours of noon and 2.30, and 5.30–7.30 p.m. Conversion and decoration: Alison Smithson [*A*] and W. G. Howell, DFC [*A*].



New College of Architecture and Building in London

The London County Council has before it a report submitted by its Education Committee on the proposed new college of architecture and building. The report now being considered is based on the following statement by the Further Education Sub-Committee of the Education Committee:

Proposals for the establishment of a college of architecture and building as part of a scheme for the reorganisation of Regent Street Polytechnic have been under discussion with the Ministry of Education and the governors of the polytechnic. As a result we have approved in principle proposals for the transformation of the polytechnic into a federal institution, composed of three colleges, namely a college of architecture and advanced building technologies, a college of engineering and science and a college of commerce, with which will probably be included a school of management studies. Each college would provide instruction at an advanced level. The professional associations concerned have been informed of the proposals.

Each of the three constituent colleges would have the fullest possible measure of independence and would, it is hoped, attract principals and staffs of high quality. In the interim period before the proposed reorganisation is complete it is contemplated that there will be a school of general studies for work not properly forming a related part of the three colleges, this school being administered by a committee of the central governing body.

It is hoped that it will be possible for each of the constituent colleges to occupy a separate site including the sites now occupied by the polytechnic in Regent Street and Little Titchfield Street, and for the college of architecture and advanced building technologies, subject to consideration by the Welfare Committee and to negotiations which are still proceeding, to be built on part of the site in Marylebone Road now occupied by Luxborough Lodge. We will report later, following the conclusion of the negotiations, on this matter.

We have also approved in principle the constitution of the central governing body of the federal institution and its order of reference and the establishment of college councils which would be the governing bodies of the constituent colleges. It is also proposed that each college shall establish such advisory committees as may be necessary and its own board of studies to be concerned with academic matters within the college. There would be a central academic council, under the chairmanship of the director of education, to deal with academic matters affecting the polytechnic as a whole. There will be a students' union forming part of the Institute.

The governors of the polytechnic have accepted in principle the draft proposals referred to above, and we have authorised the preparation of detailed plans and estimates for giving effect to the proposals.

It will be appreciated, however, that so important a new development in technical education in London will need very full discussion and the outline proposals will need to be considered at length and in greater detail in consultation with all concerned. These discussions will proceed as rapidly as possible and we will report further thereon in due course.

Planning and Controlling City Growth

Senhor Luís de Guimarães Lobato, the Portuguese planner, is to give a paper at the RIBA under the above title on Tuesday 17 May.

Senhor Lobato is the Director of the Technical Division of the Gulbenkian Foundation and in 1954 he headed, as consultant to the Municipality of Lisbon, a study group to revise and complete the planning of the city. He was responsible until 1958 for the elaboration of the Master Plan for Lisbon and for the design of other urban schemes of housing, roads, traffic improvements and of new neighbourhoods.

Born in 1915, Senhor Lobato graduated in 1938 in civil engineering at the Instituto Superior Técnico in Lisbon.

In 1938 he joined the technical staff of the Lisbon Municipality and became head of the Municipal Works Department in 1945. During this period he was responsible for the technical design and construction of many important urban schemes of roads, main sewers, markets, schools and housing. He was also responsible for the technical design of Lisbon Airport's building and hangars.

Senhor Lobato was one of the researchers who started the Civil Engineering Research Centre that developed into the National Laboratory of Civil Engineering of Lisbon.

In 1946 he joined the Hidro-Eléctrica do Zêzere that carried on the project of the Castelo de Bode hydro-electric scheme.

Senhor Lobato joined the Metropolitano de Lisboa in 1948 and first as deputy director and subsequently as director general was responsible for carrying on with the design and construction of the first seven kilometres of the underground scheme of Lisbon.

He was the author of the final report of the commission appointed by the Government to study the crossing of the Tagus in Lisbon by a suspension bridge.

Senhor Lobato was deputy mayor of Lisbon in 1958 and 1959. It is understood that he speaks excellent English.

The Development of the Architectural Profession in Britain

Anticipating the review which will appear in due course, mention must be made of Mr. Barrington Kaye's book just published on *The Development of the Architectural Profession in Britain*.

Described as a sociological study by the author, who is Senior Lecturer in Education in University College of Ghana, this book appears at a time when many members must be asking themselves in what direction the future of the profession will lie.

It is debatable whether progress is ever *towards* the future rather than *away* from the past, and in this book we are given the kind of survey that is required while we pause to think.

Mr. Kaye describes his book as a sociological analysis of the development of professionalism among British architects, setting out to show what the functions of the architectural profession have been, and how it has gone about fulfilling them. It seeks to answer two questions: why did professionalism develop among architects when it did, and why has it taken the form it has taken?

The book closes with the following footnote:

'It is as "something rather like a trade union", and possibly as a centre for research that [Sir John] Summerson sees the future of the RIBA.' And this was written in 1942!

Proposed Tour of South America

It is proposed to arrange a tour to places of architectural interest in South America, either this year or next, which it is hoped will be only the first of a series of architectural tours to be run under RIBA auspices.

The itinerary tentatively suggested is one including Rio de Janeiro, São Paulo, Brasilia, Caracas and Maracaibo, with a possible extension northwards to Mexico City, Miami and New York.

The cost of such a trip has not yet been estimated, but members who think they might wish to go are invited to write in now, and suggestions for other places of architectural interest in South America which might be included in the tour would be appreciated.

Those interested should write to the Secretary, UK Committee of the IUA, RIBA, 66 Portland Place, W1.

Library Group

To mark the centenary of Sir Charles Barry, who died on 12 May 1860, Mr. Mark Girouard will introduce an evening devoted to Barry's work at the meeting of the Library Group on 12 May.

Left to Right: Mr. Ove Arup, The Hon. Lionel Brett [*F*], and Professor A. L. L. Baker, all of whom gave eulogies of Professor Nervi, and Sir Arthur Stephenson, CMG [*F*], Royal Gold Medallist, 1954.

Presentation of the Royal Gold Medal for 1960 to Professor Pier Luigi Nervi

At the RIBA on 5 April, The President, Mr. Basil Spence, OBE, TD, RA, ARSA, in the Chair

The President: I think that I am right in describing this day as one of the most important in the year. We are assembled to do honour to a very great architect, engineer and contractor all rolled into one. I say that we do him honour, but he does us honour by coming here this evening to accept the award of the Royal Gold Medal which on the recommendation of this Institute is presented by Her Majesty the Queen. It gives me great pleasure this evening to present it to Professor Nervi.

It is also my pleasant duty to introduce to you the four speakers who will tell us something about Professor Nervi and his work. The first is an old friend of the architectural profession, Mr. Ove Arup, who is the senior partner in Messrs. Ove Arup and Partners, civil engineers.

Mr. Ove Arup, CBE, MICE, MI STRUCTE: It is a great pleasure as well as an honour to have this opportunity to pay homage to the great Nervi, and to praise the RIBA and its lively president for the very courageous, generous and just decision to give the highest honour the architectural profession can bestow to one who is, after all, widely known as an engineer.

It would be tempting on this side of the house to see this gesture as reflecting glory not only on Professor Nervi as a person, but on the engineering profession as a whole, to view it as a recognition by the architectural profession not only of the services rendered to architecture by engineers, but of engineering, or engineering design, as a creative activity in its own right and able to stand on its own feet – in fact a recognition that architects aren't really necessary at all!

Obviously, it would not only be tactless, but entirely wrong to take this line. There may be some truth in it, and to that extent it shows a generosity which is not always reciprocated by engineers, but to stress this point on this occasion would show a sectarian attitude, which would be entirely foreign to the spirit in which this award is made.

Because in Nervi we are honouring, not an ordinary engineer, architect or builder, but a man who has refused to submit to the schism which has befallen the art of building. He is still the archetypal builder, for whom the ends and the means fuse into one harmonious creation.

For him the purely constructional problems come first, and they have a fundamental bearing on the design. The character of, for instance, the large span roofs, for which he is justly famous, result from this fact. By studying the design, one can almost sense the process of reasoning and intuition which has led to it.

The starting-point is the need for economy. Naturally, a great and beautiful structure is the end in view, but unless the design is competitive the chances are that some other design and some other designer will be used. Designing in reinforced concrete it is essential for economy to lead the forces down to the ground by direct thrust, thus indicating

an arch, a vault or a dome as the dominant feature. It is also essential to find an economical solution to the formwork. The key to this solution is repetition. This again means that a simple geometric shape for the roof is preferable, because it can be subdivided into identical elements. Nervi, when he means business, does not indulge in fancy types of shell which are the despair of the builder and a headache to the engineer – he wants to help the builder, not to make building difficult. The ribbed solutions derive directly from the shuttering techniques he has so carefully and cleverly developed: his *Ferro-cemento* units spanning between the ribs, and forming at the same time the channels, in which the ribs are cast. The ribbed structure also makes for lightness and stiffness, both very important.

Finally, of course, he considers the pattern created by the ribs; he manipulates it until it satisfies his sense of beauty, without putting too great a strain on the economy, but he does not start off with a preconceived aesthetic idea, divorced from construction or structure.

The result is that his structures have a directness and inevitability about them, which surely is a mark of greatness. The architecture grows out of the process of building. And according to Nervi, this is the only way to create good architecture. When he visited London four and a half years ago, he said in his lecture that 'the outward appearance of a good building cannot, and must not, be anything but the visual expression of an efficient structural or constructional reality'.

As a guiding principle this is excellent, and it applies with great force to the typical Nervi structures, which have a clearly defined function, but present considerable structural and constructional difficulties. But I think even Professor Nervi will admit that there are cases where his maxim cannot be the only, or even the main criterion of architectural merit. Take Corbusier's Chapel at Ronchamp, for instance, or some of the buildings of Mies van der Rohe or Niemeyer: it would be very difficult to fit them in under Nervi's formula, and yet many consider them to be great architecture.

There must be many buildings of predominantly emotional content, or where the function is very complex, and where therefore other considerations play a greater role. And Nervi's own obvious interest in form is not always just the visual expression of structural and constructional reality. There is more to it than that. Form and spatial relationships have a very real architectural importance in their own right which may in some cases far exceed the importance of structural rightness, should the two happen to conflict. And they *can* conflict – the idea that the correct functional, the correct structural and the best possible aesthetic solutions are one and the same thing must, I am afraid, be abandoned together with the older philosophers' dream about the harmony and ultimate identity of truth, goodness, justice and beauty.

Whilst I do not think, therefore, that Nervi's architectural philosophy can be said to cover the whole field of architectural criticism, I still think his approach to design is much more valuable, and in much more need of restatement than any other architectural maxim I have ever heard of. The fact that so much architectural work cannot measure up to Nervi's criterion is in most cases due not to the inadequacy of the criterion but rather of the work in question.

We must not forget that we are not talking about art, which has many facets, but of building, which is art inside a limited framework, where certain rules should be obeyed. Nervi's kind of logical build-up of the scheme is to my mind the essence of good engineering and good architecture alike. At this level there is really no difference between the two; they are the same kind of activity. It is a selecting and synthesising activity, which, however, is firmly anchored to the facts of life, such as the force of gravity or the cost of steel and labour. And I agree with Nervi that architecture as well as engineering is in danger if they stray too far away from this fundamental approach.

It is natural enough that architects are more liable than engineers to forget about the more sordid facts of life because they – quite legitimately – get absorbed in the aesthetic aspects of their work.

That is where art criticism steps in, and all sorts of violent arguments rage about styles, movements or philosophical approaches to architecture. If in the heat of battle we lose sight of the problems of building, which are peculiar to this art of architecture: then the discussion can become very barren. Renewal of the architectural content can only come from a return to the fountain-head, the art of building.

In honouring Nervi, the RIBA at the same time lend their support to his way of looking at architecture; and this I for one welcome most heartily.

Nervi's work is also a lesson to engineers. They are not, perhaps, so liable to forget about the facts of life, but they can become too absorbed in analysis as opposed to design; they may get bogged down in tactics and forget the wider claims of strategy. Both are necessary, and in fact structural engineering is now such a wide subject that new specialisation is unfortunately unavoidable. But the training of engineers gives – or at least gave – hardly any thought to the business of conceiving and proportioning the structural system, which Nervi rightly says is the essential part of design. And it is a fact that many engineering structures, to which great skill and knowledge have been applied, could be substantially improved by a simple rearrangement of their parts.

Engineers are sometimes puzzled by the seemingly accidental way in which some engineers become famous in architectural circles. Some of the great engineers are completely unknown to architects; others are praised to the sky.

Conversely names like Maillart, known as household words to many architects, are even now unknown to many engineers.

I think, however, that there is some system in this madness. What architects are interested in is architecture, and what they admire in engineers is their contribution to architecture, their ability to use their structural knowledge to extend the vocabulary of architectural expression, to produce new and exciting visual forms. And if these forms really emerge from the logic of structural and economic facts, as they do in the typical Nervi structure, then the praise is well deserved.

I hope I have made it clear how whole-heartedly I rejoice in the honour which the British architects have bestowed on Pier Luigi Nervi. It will encourage those who believe in the essential unity of our two professions.

The President: It is now my pleasure to call on Mr. Lionel Brett for his contribution.

The Hon. Lionel Brett [*F*]: This is one of those occasions that would astonish a Martian. That within this small latinised peninsula of western Europe, nothing like the size the Roman Empire was 2,000 years ago, after the intimate contacts of so many generations of highly educated Italians and Englishmen, we should still not understand one another's speech, is really fantastic. Of course I know that theoretically French is everybody's second language and I believe that it genuinely is Professor Nervi's. But if I were to break into bad French at this point it would be painful for him and for you, and if I were to break into good French you would think I was showing off. As for Italian, my knowledge of it is derived entirely from the arias of Mozart's operas, none of which seem to be quite suitable for this occasion.

I have very little to add to Ove Arup's brilliant analysis of Professor Nervi's work, which was the analysis of an architect. I agree with every word of it, except possibly when he slipped into the out-of-date idea of the architect being interested only in aesthetics and not in the 'sordid facts of life', which none of us nowadays would admit. All that I can do is to point the moral of what he has said.

If one divides architecture into the plastic, which grows like a root, sensitive to obstructions and moulded by local stresses, and the geometrical, which unfolds symmetrically like a flower in free air, it is obvious that Nervi's buildings are among the supreme flower-like forms created by man. Yet

unlike the flowers, which play to the gallery in the most shameless way, these buildings are completely un-arty. They are as efficient, as austere, as a bare tree. The thing that is most striking about the few that I have seen is their seriousness. It is the kind of timeless seriousness that frames of buildings have, before the stage of self-expression arrives.

I suppose one of the commonest visual experiences of architects in this century has been to admire the skeleton of a building and dread the arrival of the flesh, the too, too solid flesh, that will cover it. Just occasionally, as in the early stages of the new American embassy in Grosvenor Square, one has the sense that the structural components of a building are its architecture. With Nervi's buildings, as everybody knows, one always has that sense. One is transported right back to one's childhood, when one made buildings out of structural components, bits of wood and steel, and before one was educated out of that and was taught that Architecture meant Styles. Now it takes half a lifetime to unlearn all that and to realise that architecture is building, that engineering is architecture, that art is science. I believe, or anyway I hope, that we are on the threshold of a period not of despecialisation, which is inconceivable, but of reunification at a deeper level, by means of a common basic training, of all those skills which create our physical environment. In that process the reunification of the architect and the engineer is the vital step. It seems to me an event of the greatest possible significance that at the start of the 60's, on the recommendation of this Royal Institute, the Queen has awarded her Gold Medal to a great engineer who has not only pleaded for this reunification but is himself the world's most distinguished embodiment of it.

The President: I now call on Professor A. L. L. Baker of the Department of Civil Engineering, Imperial College of Science and Technology, University of London, to speak.

Professor A. L. L. Baker, MICE, MI STRUCT E: It is a great honour to speak at this Institute on the occasion of a presentation to such a famous engineer and designer as Professor Nervi. It is perhaps not surprising that craftsmanship in building, raised to a grand scale by science and engineering, has reappeared in Rome. Eighteen centuries ago, quite close to where Professor Nervi now works, Hadrian and his builders constructed a dome 142 ft. in span. They used skill and care in adapting and using the building materials known to them, shaping them to a logical structural form, so that today the Pantheon still stands in good condition as a monument to their work. Today, also in Rome, Professor Nervi's Palazzo dello Sport has a roof of exquisite precast ferro-cement fan tracery, which spans lightly and gracefully a 330-ft.-diameter stadium.

Through the centuries, the great builders and architects have evolved and designed roof forms appropriate to the available materials and tools of construction. Early Roman cement attained its finest use in the light-weight concrete of the Pantheon roof, a more impressive structure than the masonry domes of either St Peter's, Rome, or St Sophia, Istanbul. English fan vaulting at King's College Chapel and elsewhere was, and still is, the crowning glory of the masonry roof. The artistic use of the relatively modern material, structural steel, has been disappointing, except where strength is emphasised by simplicity and slenderness. Even St Pancras Station has not yet been surpassed. It would be best just to leave to oblivion the innumerable large roof trusses and false ceilings, resulting to some extent from the barren divorcement of the architect and the engineer. A complete revolution in roof design came with the use of reinforced concrete in the form of thin shells. Large spans, double curvature and fantastic shapes became possible. Professor Nervi was not satisfied with the cast-in-situ shell. Timber moulds shaped to the required true structural form were difficult to make and expensive. From the need to make ships' hulls without steel plate in wartime came a new and improved technique of using cement, sand and steel wire. Thus Nervi produced 'ferro-cement', a water-tight, tough, flexible membrane, easy to shape to any curvature. Here was the future building material for curved structures. In 1948, Nervi designed and built the Turin Exhibition Hall, with a fantastic 312-ft.-span corrugated arch roof, of precast ferro-cement units.

Later, after experience on other roofs, came his crowning achievement at Rome, in the Palazzo dello Sport. Externally, the profile is reminiscent of the gentle curvature of the 1951 British Dome of Discovery, an all-metal space frame whose disappearance I sadly deplore.

Internally, the Palazzo roof reveals the triumph of a great engineer and designer. Here is evidence of the early scientific training at Bologna, the real craftsman's natural concern with his material, and the constructor's practical common sense. Delicate tapering precast perforated corrugations radiate from a central corona of light. Their extended curvature spanning over 330 ft. expresses gracefully the great strength and flexibility of Nervi's ferro-cement, which made the construction possible at reasonable cost. This structure perhaps exemplifies more than any other Nervi's philosophy of design. Engineering science and stress analysis have their place, but however rigorous, they are not enough. An engineer must amplify and verify calculations by model tests. He must know his materials intimately and continually adapt them and form them, to produce designs which are structurally logical and simple to build. He must be cost-conscious. The Palazzo cost £350,000 and accommodates 16,000 people, i.e. a shilling per head for 437 occasions, or a possible pay-off over ten years. I would like to think that that might even tempt some of our football associations.

I have not mentioned the UNESCO and Pirelli buildings, pre-war hangars and many other structures. I feel the Palazzo is enough, the creation of a man who is engineer, contractor and architect, and who believes this combined role is essential for good design. His Palazzo dello Sport has achieved in the 20th century what the Pantheon did in the 2nd century.

The President: The fourth speaker is Professor Robert H. Matthew.

Professor Robert H. Matthew, CBE, ARSA [*F*]: I should like to finish these tributes with a small personal recollection. A few years ago I found myself in Karachi as a member of an international jury, judging a competition for a memorial to Jinnah, the founder of Pakistan. The only member of the jury that I had not met before was the most notable of all – and he is here tonight. A little while before that I had seen, in company with Roddy Enthoven and Wells Coates, the first of Nervi's halls, at Turin. We had been astonished, and we had all been aware that here was a new force of great power in the world of architecture. To meet this designer and builder in the atmosphere of a competition would be a great experience in itself. The few writings of his that I had come across before that seemed to me to be of a different order from those we had grown up with from our student days onwards. Nervi, it would seem, did not seek to lead any movement. From his manner of writing he was clearly – very clearly – no demagogue. He wrote simply, because he had something important to say.

Meeting Nervi in the flesh amply confirmed all these impressions. Throughout those hot days in Karachi and through the sometimes equally hot debates and assessments and reassessments of the competition he remained quietly calm and unruffled, but from the beginning one could see that his own mind was very clearly settled. His spontaneous analysis, given in the fewest possible words, of many of the contributions to the competition, often with an illuminating gesture which I shall never forget and sometimes with devastating force, were themselves an exhilarating and salutary lesson. Any student under such a master must be one of the most fortunate in the world. What he said sprang from conviction and from sincerity; there was nothing whatever there for effect.

Here, then, were the human qualities that immediately impressed: depth of knowledge, extreme clarity of thought, simplicity of expression. And these, as you have already heard, are the qualities that patently shine through his work.

In contrast to this, the general background to architecture in the world today is far from clear. The foundations to the development of architectural thought are much less secure than they seemed to be quarter of a century ago, and we are again probing in many directions. During this period, in spite almost of ourselves, specialisation and professionalism have forced even further apart the essential members of the building team. The synthesis about which we all talk, certainly in this but also in many other countries, is still beyond us. In the work of Nervi, however, there it is for all of us to see; and the Royal Institute on this occasion tonight is not, I believe, unaware, in addition to its personal significance, of its symbolic value.

If for a moment I speak about education, it is not because I am a teacher but because of the deep interest that Professor Nervi has and has always had in the educational problems of what he calls the 'structural architect'. He has called the training of the architect the most important problem in architecture today, and all those here tonight who teach or who have had anything to do with teaching must agree with him.

This is a time for fundamental reappraisal, and I suggest that there can be no firmer basis for such a reappraisal than Nervi's primary requirements for the architect today; in his own words, aesthetic sensibility; profound understanding of structural needs; and a precise knowledge of the methods, possibilities and limitations of constructional techniques. This is a massive, an all-embracing statement. I am sure that he is only too well aware of the difficulties involved in devising courses of study, within reasonable time limits, directed to these ends. But, in spite of all the obvious difficulties, I am bound to agree with him that unless this can be done, and unless we can, in his own words, 'unite in the young constructor' – note the word! – 'artistic sensibility, technical wisdom, and knowledge of building methods', and unless this can be done fairly soon, the hopes of the new architecture will be to a great extent frustrated. I can only add to that the obvious comment that such frustration exists on a large scale today. We are all – engineers, builders, architects – now aware of this basic problem, and we must seek inspiration towards its solution where we can find it. To my mind, the life and work of Nervi provide such an inspiration, and that is worth much more than all the theory in the world today.

I congratulate the RIBA on making this gesture to a great man, but I suggest that this may be only a beginning. In this great reappraisal in the field of education, in this period of re-thinking with which we are faced, we could not do better – and I say this entirely on my own initiative – than seek the advice of this great structural architect (if I may use his own phrase), who has, out of his practical experience, thought more creatively about the fundamentals of education than anyone else I know of in the world today.

The speakers who have preceded me have spoken about the fusion of the qualities of architect, engineer and builder. This is indeed a grand synthesis, but his even greater synthesis includes the quality of being able to impart his knowledge and inspiration to the young. It is this unique combination of qualities that, I am proud to say, has led my own university in Edinburgh to offer to Professor Nervi this coming summer an honorary degree, an honour which I am glad to say he has accepted, and I hope that my students will see him in Edinburgh in July.

Without presumption I think I can speak on behalf of all those in this country in the field of education in welcoming Professor Nervi here tonight, and, through my own inadequate words, expressing our profound admiration for his life and work and not least for his deep influence on the coming generations. Long may it continue!

The President, in investing Professor Nervi with the Royal Gold Medal, said: Professor Pier Luigi Nervi, by the specific authority of Elizabeth II, Queen of this Realm and of the Commonwealth, I place upon you this Royal Gold Medal, which is a symbol to the world of our appreciation to you for your great contribution to architecture.

Professor Nervi, who spoke in French, said: Mr. President, ladies and gentlemen, my dear colleagues, I am, as you will readily understand, greatly moved by this ceremony, which has touched me deeply. It is difficult for me to find words in which to thank Her Majesty the Queen, you, Mr. President, and the Royal Institute of British Architects for this high and noble distinction that I have been given. I believe that beyond the honour done to me personally you wish to show your appreciation of the extraordinary possibilities of the material which I have studied all my life. Reinforced concrete is indeed a method of construction which has enormous possibilities, which we are only now beginning to understand after using it for more than 40 years. We are still finding new possibilities in it from the technical, from the architectural and from the structural points of view, and I am certain that in the future it is this system of construction which will be found to be the most rich in its structural and above all in its architectural possibilities.

Even in my native language it would be difficult for me to express adequately my feelings on this occasion, and in French I find it even more difficult, while in English it would be absolutely impossible. I ask you, therefore, to appreciate for yourselves the feelings which I find it impossible to put into words.

The President, in closing the meeting, called attention to the exhibition of the work of Professor Nervi which was being held at the Institute.

More about architects' incomes in 1955-56

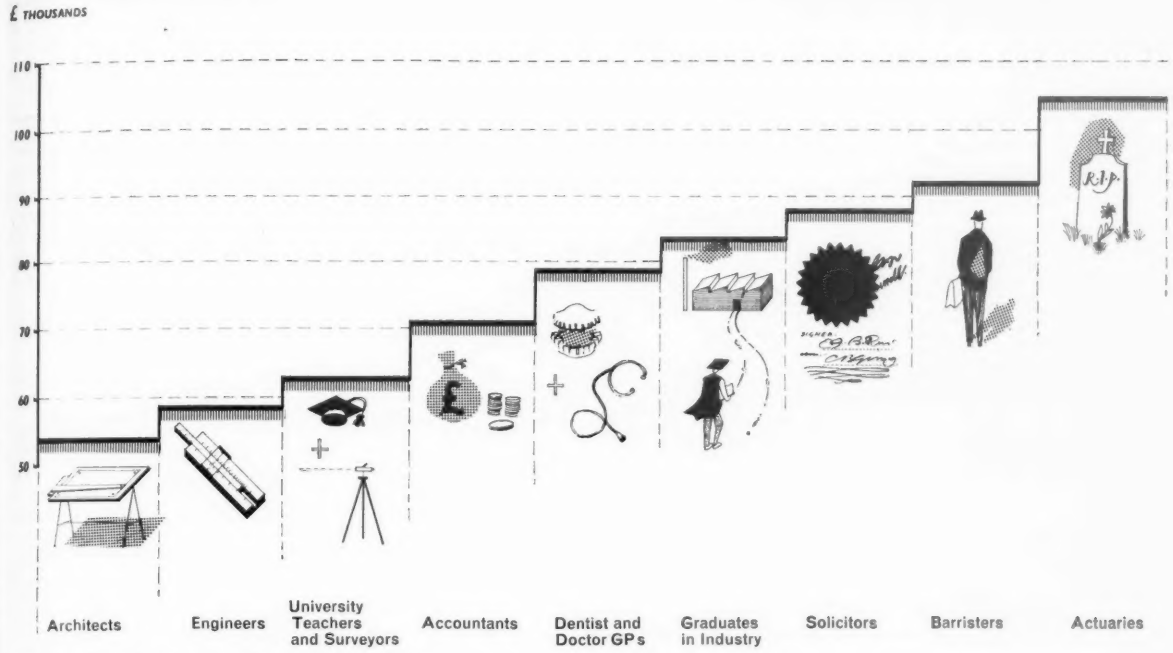


Figure 1 Comparison of total 'career' earnings: age 30 to 65

The low level of architects' earnings in 1955–6 compared with those of other professions was described in an article in the April issue of the JOURNAL (page 195). A reminder of the position is given in Figure 1. Further information is now available about the earnings at different ages of architects working in various fields – central and local government, national boards, teaching and other salaried employment as well as in private practice. This confirms that architects in local government at that time earned less in nearly every age-group than architects working elsewhere, apart from salaried assistants in private practice. The level of earnings of architects in central government was surprisingly similar to that of principals in private practice on their own account; while principals working in partnership in private practice earned considerably more at all ages (see Figure 2).

Table 1 shows the range of incomes earned in different occupation groups, together with the proportion of architects in each group, and the proportion of these who were under 40 at the time. The age structure of each group of architects obviously influences the median income of the group as a whole: of the architects working in central government or as principals in private practice, with median incomes ranging from £1,244 to £2,068, nearly three-quarters were over 40; while more than half of the architects in local government, and over three-quarters of the assistants in private practice were under 40, the median income of each group being below £900.

More than half of the teachers of architecture were under 40 and the median income for this group was relatively high at £1,200. However, the income figures included any earnings from part-time private practice, and more than half of the teachers in the sample supplemented their income in this way, earning an average of £300 a year. In other types of salaried employment the proportion of architects who showed an income from this source was much smaller – 7 per cent in local government, 12 per cent in central government and

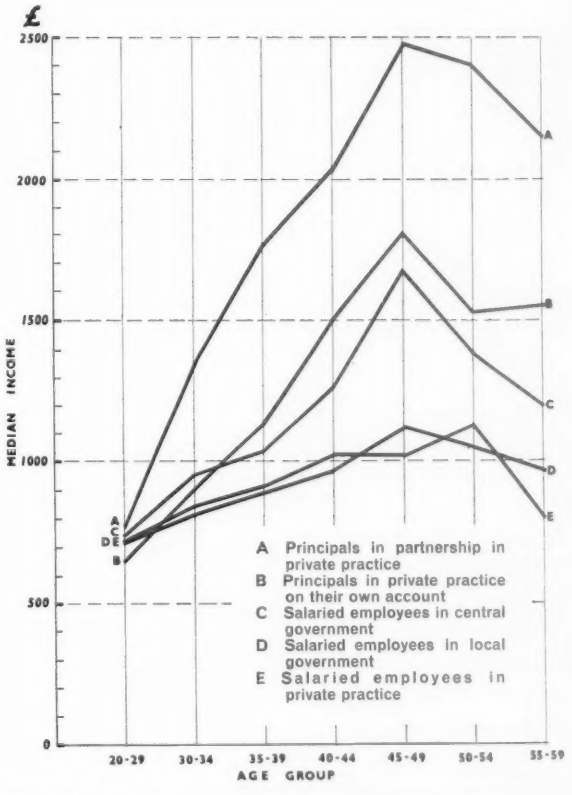


Figure 2 Median incomes of architects by age and type of occupation

Architects' Incomes in 1955-56

Table 1

Incomes of architects in 1955–6 by type of occupation – all ages

Main occupation	Proportion of architects in each occupation group	Incomes				Proportion under 40 in each group
		25 per cent earned less than	Median	25 per cent earned more than	10 per cent earned more than	
	%	£	£	£	£	%
Private practice						
Principals on own account	11	806	1,321	2,175	3,255	24
Principals in partnership	14	1,293	2,068	3,258	5,790	28
Salaried assistants	21	700	822	1,010	1,255	78
Public service						
Central government	8	979	1,244	1,604	1,820	28
Local government	31	760	885	1,065	1,380	55
National boards	5	838	1,029	1,257	1,900	50
Other employment						
Teaching	1	(*a*)	1,200	(*a*)	(*a*)	54
Industry, commerce, and other architectural employment	7	890	1,088	1,508	2,110	48
Employment outside architecture	2	831	1,083	1,638	1,910	31
Total: all architects	100	779	984	1,430	2,270	50

Note (*a*): The number of teachers in the sample was too small to give more than the median income.

Table 2

Median incomes of architects by age and type of occupation

Main occupation (*a*)	20–29	30–34	35–39	40–44	45–54	55–64	All ages
	£	£	£	£	£	£	£
Principals in private practice on their own account	(*b*)	900	1,125	1,500	1,675	1,000	1,321
Principals in partnership in private practice	(*b*)	1,350	1,760	2,013	2,450	2,300	2,068
Salaried assistants in private practice	728	843	914	1,022	1,050	(*b*)	822
Central government	740	950	1,033	1,261	1,615	1,200	1,244
Local government	721	812	893	976	1,089	992	855
National boards	685	875	(*b*)	1,063	1,300	(*b*)	1,029
Other architectural employment (including industrial and commercial firms)	750	931	1,116	1,250	1,550	1,500	1,088

Note (*a*) The figures include any income from a subsidiary occupation, such as part-time private practice.
(*b*) The sample for this group was too small to provide reliable information.

Table 3

Comparison of engineers' and architects' incomes in salaried employment outside private practice

Main occupation	25 per cent earned less than	Median income	25 per cent earned more than	10 per cent earned more than	Proportion of total in each group
	£	£	£	£	%
Central Government					
Architects	979	1,244	1,604	1,820	8
Engineers	1,066	1,265	1,545	1,862	12
Local Government (excluding teaching)					
Architects	760	885	1,065	1,380	31
Engineers	824	968	1,360	1,955	10
Commerce and Industry					
Architects	890	1,088	1,508	2,110	7
Engineers	951	1,181	1,650	2,411	41

11 per cent for salaried assistants in private practice; the incomes declared were also smaller, the majority being under £100 a year.

The top 10 per cent of incomes represent the most successful in each field. Here there is a much wider spread between occupations, the top 10 per cent earning more than £1,380 for local government, £1,820 in central government, £2,110 in commerce and industry, £3,255 for principals working on their own account and £5,790 for principals in partnership.

Peak earnings at 50

The median income in each occupation group increased with age up to about 50, and then showed a tendency to decline (see Table 2 and Figure 2). The same pattern also emerged for several other professions – accountants, barristers and doctors. In the case of dentists, where peak earnings were reached before 45 with a substantial fall thereafter, this was attributed to the heavy physical demands of the work which with advancing age practitioners are unable or unwilling to meet. The need or desire to slacken the pace of work may be one cause of the decline in incomes of architect principals in private practice after the age of 50; but the same would not apply for architects in salaried employment. A standstill in income might occur when the top of the scale is reached; but a stepping-down in grade after a certain age is not yet the custom, despite its recommendation by Parkinson as a means of improving promotion prospects for those on the way up! Another reason for the lower level of incomes after 50 may be that, with the post-war expansion of the architectural profession and of salaried employment in particular, a high proportion of the more senior salaried positions in 1955–6 was held by architects under 50.

The sample is too small to allow a complete analysis of the top 10 per cent of incomes by age and occupation group, but here again the peak earnings appeared to be reached between 45 and 54. In this age-group, the top 10 per cent earned more than £1,815 in local government and £2,000 in central government, compared with £3,500 for principals working on their own and £7,500 for principals in partnership.

In making comparisons between earnings in salaried employment and in private practice, it must always be remembered that the former does not show the provision for pensions that is provided in public service and a high proportion of industrial and commercial firms. The earnings of private practitioners, on the other hand, have to provide both for their pensions and for a return on the capital invested in the practice or the repayment of borrowed capital.

Comparisons with engineers' incomes

The engineering profession is the only one for which separate income figures have been published for the different groups of salaried employees. Table 3 shows how engineers compared with architects in these fields. In general, engineers showed higher levels of income, although in central government and commerce and industry the difference was not very great. In local government, the difference widened markedly at the top. Whereas the median income of engineers in local government was only 10 per cent more than that of architects, the gap between the top 25 per cent of incomes was 30 per cent and for the top 10 per cent it increased to 40 per cent. Although the proportion of engineers working in local government was much less than that of architects, the actual number of each was probably not very different, bearing in mind that there were at least three times as many engineers as architects in total in 1955–6. In investigating the reasons for the low level of architects' salaries in local government, it might be instructive to look also at the position of engineers.

JOAN MILNE,

Economic Research Department, RIBA

The Attitude of Building Societies to Modern Architecture

by F. M. Osborn FCIS

Chairman of the Public Relations Committee, The Building Societies Association

This subject has generated a good deal of controversy so perhaps it would be wise to state at once that from the building society point of view it is not a major problem. This does not mean that building societies do not take the criticism of architects seriously, but the average price of a new house in Britain is now £2,400, which is within the range of a man earning between £15 and £16 a week, and it is mainly with these buyers that building societies are concerned. Houses at this figure are rarely designed to the individual taste of the customer.

Clearly, building societies always have to keep in mind the resale value of houses which form the security for their loans, but they are conscious that tastes change and that it is their duty to keep abreast of modern trends. Indeed, many mortgages are granted on houses of the latest design, but unfortunately only the unusual cases receive publicity, i.e. when a borrower cannot readily obtain the full loan which he is seeking or where the design is frankly controversial or of limited appeal.

For some years now building societies have had insufficient funds to meet in full the exceptionally heavy demand for mortgages, so that many prospective borrowers, whether they were interested in traditional or in new designs, have had to be disappointed. Some societies may have felt it a greater contribution to the housing problem to have housed two families in cheaper houses than one family in a more expensive one. There would seem to be a strong case for architects to pay greater attention to the cheaper house, even though this may mean that they have to be designed in groups.

It is impossible to define what constitutes 'good' modern design. The architect is creative and must be given a free hand, but the building society becomes the point at which creative talent has to reckon with the hard financial facts of life. Will the product sell readily? Will its value for mortgage purposes approximate to its cost? Building societies are in direct touch with borrowers and it is their business to understand the public taste in housing, always remembering that the pocket controls the extent to which that taste can be satisfied. £5,000 is not an excessive price for an individually designed house, but even so, if a maximum mortgage is required, the borrower would need to be in (or approaching) the surtax class.

Building societies are not so conservative as some critics would have us believe. They are anxious to play their part in the building of a better Britain, but they are responsible for the safety of their investors' money and they cannot be expected to take the risk of financing highly individualistic or experimental designs.

What can be done to bring architects and building societies closer together? One practical suggestion is that the architect should approach a building society at a very early stage in any new project. In this way each party will understand the problems of the other and no doubt both will gain from the interchange of opinion.

The Battlefield

A Pictorial Review of Victorian Manchester

by Cecil Stewart, MA (MANCHESTER), DA (EDIN.) [*F*]

A hundred years ago, on 8 September 1860 to be precise, the Battle of the Styles officially began. On that day the Prime Minister, Lord Palmerston, informed Gilbert Scott 'that he would have nothing to do with Gothic'. The Foreign Office, he insisted, was to be designed in 'ordinary Italian'. As a result, Scott withdrew to Scarborough, 'bought some costly books on Italian architecture and set vigorously to rub up' his knowledge of Renaissance. 'My new designs', wrote Scott, 'were beautifully got up. I was so determined to show myself not behindhand with the Classicists.' Nevertheless his 'shame and sorrow were for a time extreme'. The leader of the Goths had not only lost the first round, he had treacherously gone over to the other side, and hope for the future lay not in London but at the confluence of the Irwell and the Irk – at Manchester. There, untrammelled by the past, commercial enterprise was erecting a new city. No holds were barred, no styles prohibited. The city which played such a leading part in the Free Trade movement was not going to be restrictive in architectural practice. 'A new school of architects has sprung up,' wrote the editor of THE BUILDER, 'many of them very young men, and it is greatly to the credit of the merchants of the town that they have the judgment to use the services of these architects.'

Manchester, indeed, must have been a paradise for Victorian architects. Today it is a paradise for Victorian historians. Nearly all the great names of the age have left here some monument to their virtuosity. Nearly all the styles of architecture are represented in some form or another. Manchester presents a history of architecture of all ages and places, but all built within a few miles, within a century.

The Portico Library, 1802. Thomas Harrison

THE CLASSICAL STYLE

The first important buildings were strictly Classical, at least in their outer casing; internally, the complex new requirements of the age necessitated the abandonment to some extent of Athenian discipline. The form of the temples of the Olympians does not easily comply with the practical demands of wash-houses, work-houses and tramway depots, or even of such learned or public buildings as libraries and town halls. Inevitably, therefore, the outstanding problem which faced the revivalists was to present an appearance of the past, while at the same time accommodating entirely new functions. Thomas Harrison, the designer of the Portico Library, showed how this could be done. The outside is a replica of the temple of Athena Polias, but the inside is roofed by a wonderful glazed saucer dome, poised on segmental barrel vaults at each end and segmental arches at the sides, in the manner of Sir John Soane. Thomas Harrison was among the first, if he was not the very first, to practise in the Greek mode. His other works in Manchester – the Theatre Royal and the Exchange – have since been superseded.

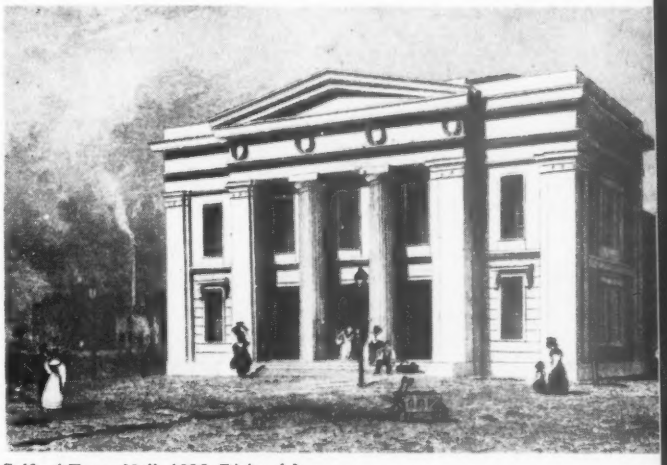
The first Town Hall, 1819. Francis Goodwin

Francis Goodwin was not, perhaps, so strictly loyal to the Classical as was Harrison. He could, as his publications showed, design in a variety of modes, and he specialised in what he called the 'cottage style'. 'It is by no means easy to define,' he wrote, 'it being marked by a certain air of *déshabillé*.' In his design for the first Town Hall in Manchester, however, he chose as his model the Erechtheion for the main façade and the Tower of the Winds for the surmounting dome. In effect, he was providing for secular architecture what Inwood had done at St Pancras for the Church. It was a noble building, and fortunately the central section of the façade has been preserved and re-erected as a feature in the grounds of Heaton Park.

Even for churches the Classical style had its adherents. In 1822 Robert Smirke designed St Philip at Salford, using the Order which he was later to apply, with greater success, at the British Museum. St Philip has an unusual plan because of the necessity to present the showiest front to Chapel Street, with the result that the customary western portico is omitted. Apparently, however, Smirke thought the scheme sufficiently good to deserve repetition, and when in the following year he was commissioned to design the church of St Mary at Wyndham Place, London, he simply duplicated the composition.

St Philip, Salford, 1822. Robert Smirke

For some years Goodwin was partnered by Richard Lane, a Manchester man who, as land surveyor to the Police Commissioners, was responsible for a number of Classical buildings. Never within a decade can so many façades in one town have been covered with elements so few and, in most cases, so monotonous. His first important public undertaking was the building of Salford Town Hall, which he repeated nine years later, with only minor variations, at Chorlton-on-Medlock. He built the Friends Meeting House in the guise of the temple on the Ilissus, and the infirmary and lunatic asylum in Ionic and Doric respectively. He was the first President of the Manchester Architectural Society, but he thought, in 1837, that compared with Athens, Manchester 'afforded little scope or encouragement for architectural display'.



Salford Town Hall, 1825. Richard Lane

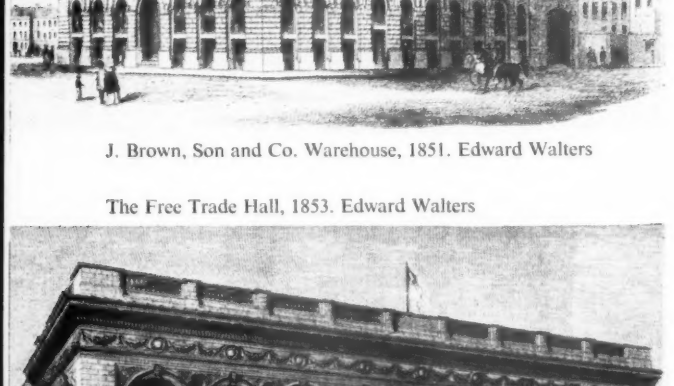
Royal Manchester Institution, 1824. Charles Barry

One man who received his greatest initial encouragement in Manchester was Charles Barry. In 1824 he entered for, and won, the competition for the Royal Manchester Institution (now the City Art Gallery). This is Barry's only 'Greek' public building. 'By contrast', wrote the editor of THE BUILDER, 'with the pseudo-Greek which in Manchester had degenerated from the time of Harrison, it was Greek derivatively and yet was new and original – a work of art and mind. The portico as a feature of architecture is used and not spoiled. That feature and the remainder of the building were grouped together, whereas in the Greek of that day the portico was often tacked onto a many-windowed façade.'

The Athenaeum, 1837. Charles Barry

J. Brown, Son and Co. Warehouse, 1851. Edward Walters

The Free Trade Hall, 1853. Edward Walters



THE RENAISSANCE STYLE

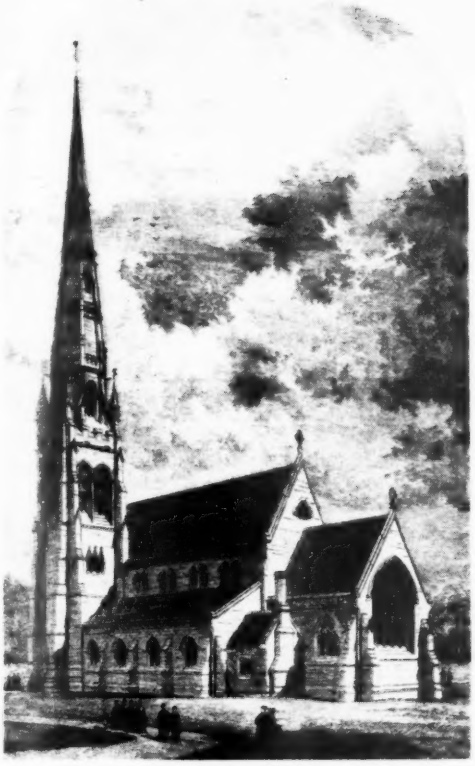
The Italian Palace style, which Barry also introduced into Manchester in 1837, was probably more important in its effects than any other. This was the style which, with some most peculiar local variations, was to provide the pattern for the great warehouses of mid-Victorian times. In the event, it was still no more than a skin, but it was one which allowed for several storeys and a reasonable amount of window. The Athenaeum (now the City Art Gallery Annexe) was an adaptation of Raphael's Palazzo Pandolfini in Florence, and was to be reproduced in Barry's design for the Reform Club in London.

The first of the commercial palaces was built by Edward Walters in Mosley Street, not far from the Portico Library, but has now been altered out of recognition. Fortunately, however, there still survives his great warehouse in Portland Street, which appears at first as a four-storey building, but because the basement is combined with the ground storey and the attic concealed behind the entablature, is in fact an imposing six-storey block. A curious and important feature of the design is the different treatment of the windows on each floor. This technique was to allow later designers to display their originality in a special and particularly Victorian way.

Edward Walters's outstanding work in the Italian Palace style was not, however, a warehouse, but the Free Trade Hall, a noble improvement on the Gran Guardia Vecchia at Verona, from which it is derived. With the possible exception of the Royal Manchester Institution, it is Manchester's finest public building. The inside was completely gutted by bombing, and has been entirely reconstructed by the City Architect. There are still many monuments to Walters in Manchester, of which the Manchester and Salford Bank, now Williams Deacon's Bank, built in 1860, was the last and one of the best. After this he retired to Brighton, and the Battle of the Styles began. Expertise gave way to eccentricity, correctness of style to ingenuity. The Palace style became no longer an exercise in the interpretation of Renaissance precedent, but rather a test of versatility and singularity.

THE GOTHIC STYLE

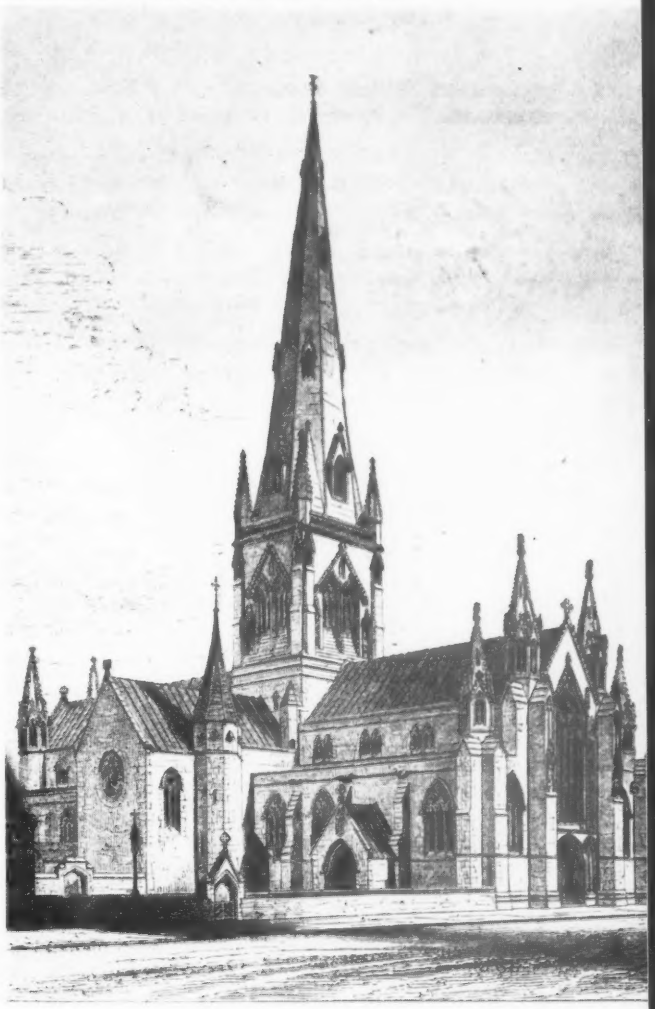
In tracing the history of the Battle of the Styles in Manchester, one of the most disconcerting facts is that the participants appear to have been surprisingly ready to fight on either side at the same time. Barry, Goodwin and Lane were prepared, when the occasion or client demanded, to produce Gothic designs. Even Walters produced an essay in the Romanesque style; and Smirke, at St George, Tyldesley, was responsible for a most regrettable attempt in Gothic in the same year that he was designing St Philip, Salford.



St Wilfrid, Hulme, 1842. A. W. N. Pugin

Holy Trinity, 1845. Edmund Sharpe

St John's Cathedral, 1845. Hadfield and Weightman



A. W. N. Pugin was, of course, a notable exception. Gothic for him was a living art, not an exercise in the application of a dead style. In 1841 he published *The Present State of Ecclesiastical Architecture in England*, and in this he illustrated his design for the church of St Wilfrid, Hulme, which was to be built in the spirit of the Middle Ages. Historically it is important in that it broke away from the strictly symmetrical norm of stone Commissioner churches. It was to be built in brick, with a tower to one side. Like so much of Pugin's work, it was built too quickly and too cheaply. Nevertheless, it was, as the BUILDING JOURNAL reported, 'an amazing achievement', even although the sum allowed – £5,000 – was all spent before the internal plastering was undertaken, and the top of the tower was never built.

To build in the spirit of the Middle Ages without actually copying was not easy, especially since one was constantly liable to criticism if one's mouldings or tracery betrayed any deviation from accepted standards. It was easier to reproduce details from published measured drawings, and avoid the accusation of plagiarism by combining in one design details drawn from a number of different buildings. This was the technique adopted by Hadfield and Weightman in the building of St John's Cathedral. The tower and spire were from Newark, the nave from Howden and the choir from Selby. Every detail was exactly reproduced from the measured drawings which had been published in Edmund Sharpe's *Architectural Parallels*.

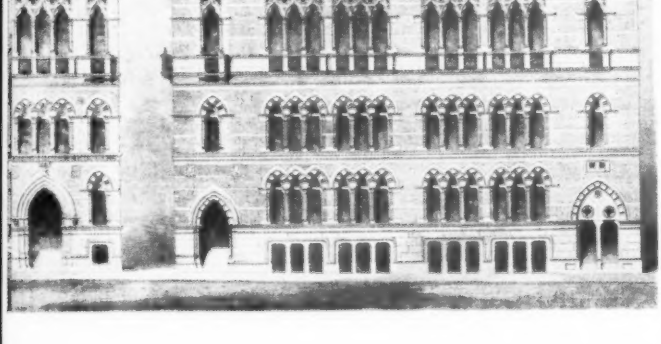
Edmund Sharpe was born in Knutsford and began his architectural practice about 1840. Apart from his literary work, he was famous for the development of terracotta as a building material. In 1845 he was commissioned to build the church of Holy Trinity in Platt Lane. He chose as his model a 14th-century Lincolnshire church. 'The whole has been treated as a work in masonry,' Sharpe said at a meeting of the RIBA, 'and very few of those who live in the neighbourhood are aware that it is not so.'

Second Town Hall, 1868. Alfred Waterhouse

The leader of the Gothic Revival in mid-Victorian Manchester was Alfred Waterhouse. After a period of pupillage under Richard Lane, he escaped from Classical discipline and began practice in a medley of romantic modes, culminating in the peculiarly personal Waterhouse–Prudential style. His first great work, the Assize Courts, was, alas, severely bombed and is now no more. The Strangeways Gaol behind, a more profitable but less imposing work, remains relatively secure. The great work of Waterhouse was the second Town Hall which, according to Goodhart-Rendel, continually surprises those who dislike its style into unwilling admiration.

Gothic architecture, in one form or another, persisted in Manchester up to the end of the century. The 'hards' – Street, Bodley and Butterfield – all made notable contributions. Hansom gave us the church of the Holy Name, and Scott his finest church, at Worsley. The last great achievement at the turn of the century was by Basil Champneys, the designer of Rylands Library. This is still one of the city's show-pieces. 'Mr. Champneys', said Beresford Pite, 'has given us a building which has at last removed the reproach that the Law Courts were the last word on the subject of English Gothic. . . . Rylands is a monument to a great benefactor, a monument to a great idea, carried out by an architect with a great ideal.'

The Memorial Hall, 1865. Thomas Worthington



THE ITALIAN GOTHIC STYLE

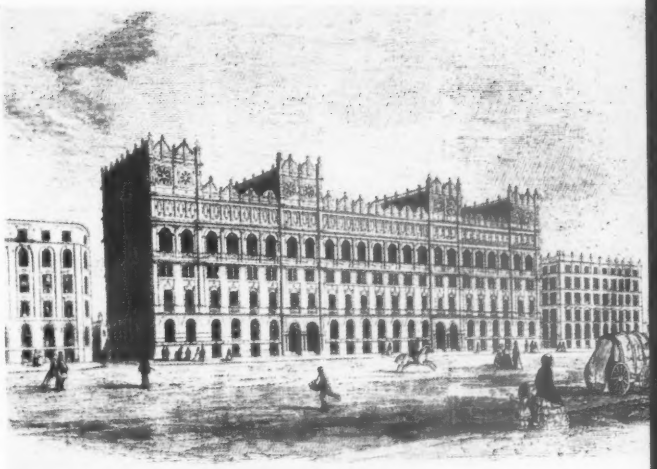
It is inevitable that the name of Waterhouse should be linked with that of Worthington. They were contemporaries, and both carried out their greatest works in Manchester. Thomas Worthington favoured Italianate architecture, at first Renaissance but later Gothic. Even when confronted with such prosaic commissions as the Manchester and Salford Baths and Laundries, he was able to contrive designs in a 'Veronese or Lombardic style'. In 1862 he published his design for the Albert Memorial. It was like a medieval shrine, a ciborium protecting the statue of the Prince, and was described as belonging 'to that period of medieval architecture between the ages of Giotto and Brunelleschi'. It was the first published Albert Memorial. Scott's later effort in Kensington certainly owes something to Worthington, although Scott wrote: 'My idea was to erect a kind of ciborium to protect the statue of the Prince. . . . This was an idea so new as to provoke much opposition'. It was certainly not new to any reader of THE BUILDER.

Albert Memorial, 1862. Thomas Worthington

Three years later Worthington was given the opportunity of designing the Memorial Hall in the new Albert Square. This delightful building is Italian in all its details. Then, in 1868, he built the new Police Courts, 'in that type of pointed Gothic of which examples abound in Florence, Verona, Siena and other centres of northern Italy'. Italian Gothic was beginning to abound in Manchester which, said Thomas Worthington, 'is acquiring a reputation of a town of some architectural character; it is the inland metropolis of the north – the Florence, if I may so describe it, of the nineteenth century'.

THE ECLECTIC STYLE

It will have to be admitted, at this stage in our survey, that the architecture of Manchester was becoming a little confused. 'Many of the Manchester architects', wrote the editor of THE BUILDER, 'seem to know no medium between dry classicality and the violent vagaries of Gothic out-Gothicised.' The trouble was 'the desire for something clever and out-of-the-way, the almost total absence of real taste and refinement, of style and detail, combined with a considerable degree of cleverness and originality; these are the qualities which distinguish modern Manchester architecture'. As for the Manchester warehouses, 'the vulgarity of some of the designs is outstanding. Deliberately to take features of various styles and bundle them together is only the way to produce monstrosity and a sort of architectural chaos'. Throughout the 19th century there were always some 'rogues' in Manchester, who disdained to fight on either side. As early as 1851 the firm of Travis and Mangnall was piling up some 5,600 tons of Derbyshire stone, 700 tons of iron and 40,000 cubic feet of timber in the erection of Watts Warehouse. It is the most grandiose, the most pretentious, the most opulent warehouse in Manchester. Stylistically it is unclassifiable. The main storeys are possibly Renaissance, though each layer is different. Above, there is a frieze of strapwork decoration, a parapet of gables and urns interrupted by great blocks with wheel windows, which are capped by further gables, urns and pinnacles. It is as gigantic a piece of confectionery as can be imagined.



Watts Warehouse, 1851. Travis and Mangnall

Similar complications apply in assessing the style of Edward Salomons's Reform Club. He called it 'somewhat semi-Gothic', and it certainly illustrates the stylistic versatility of the age. Apart from variations in fenestration at each storey, it is enlivened by coloured voussoirs, by polished granite shafts, relief carvings, domed gazebos with pinnacled roofs and a culminating high flèche rising from a steep, crested roof. A confusing, but nevertheless characteristic, product of Victorian versatility.

Reform Club, 1870. Edward Salomons

The search for a new style persisted throughout the 19th century. 'Gothic', said a speaker at the RIBA, 'has been utterly ransacked in search of what was novel and picturesque.' A new style must be found. A few architects, therefore, exploited the wardrobe of that august, but notoriously defunct monarch, Queen Anne. But the majority stuck to their styles – English, French, Italian Gothic, occasionally Renaissance or Romanesque – until the end of the century. For the rogues there seemed to be no limit to eccentricity. One illustration will suffice. It is a chapel at Pendleton of brick, stone and terracotta, combined in a manner which is surely unforgivable in any age. The rings of red brick and yellow stone voussoirs, the monumental keystone which supports the horrid central turret, the four towers capped with stone lids and the perverted Romanesque portal at the centre, all seem utterly confusing. Some day someone may be able to see the joke, even if it seems to him to be in regrettably bad taste.

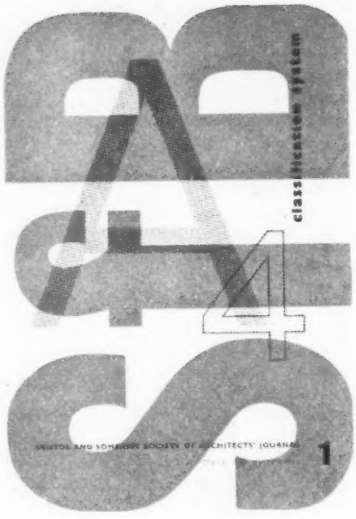
Welsh Calvinistic Chapel, 1880. William Dawes

The story of Manchester does not end here. There is a wealth of architecture unmentioned, of Edwardian and neo-Georgian times. There is even some neo-Elizabethan, but we are too near to assess its qualities, and the law of libel prohibits comment. The regrettable fact remains that the Battle of the Styles is still being fought. Manchester is still a battlefield, and the bombing of the last war has done little more than provide space for the conflict to continue. There are still architects seeking the appropriate style, and the modern movement has done for them no more than to supply a further alternative mode. There is also, however, some new architecture that is really worth seeing.

Technical Column

BSSA Journal

Two journals for the architectural profession managed to change to the A4 size before the RIBA JOURNAL: the MODULAR QUARTERLY and the BRISTOL AND SOMERSET SOCIETY OF ARCHITECTS' JOURNAL. I hear that other journals are also likely to follow suit. The cover of the BSSA JOURNAL is reproduced opposite; unfortunately our reproduction does not do full justice to a subtle design in which the letters SFB are in blue (nearest Munsell reference: 2·5 PB 6/4). The contents of the journal and their layout and typography are well up to the standard set by the cover design. The first issue is largely devoted to an article on classification by Dargan Bullivant [*A*] which first appeared in the ARCHITECTS' JOURNAL. Congratulations to the editors who have shown that good layout can assist ease of reading. If you don't agree just compare the AJ and the BSSA versions of the same article.



Chairman of BSI's Building Divisional Council

The British Standards Institution announce the appointment of Professor R. H. Matthew, CBE, ARSA, [*F*], Professor of Architecture in the University of Edinburgh, as chairman of the Building Divisional Council. Professor Matthew will also serve on the BSI's General Council and on the Executive Committee of the General Council. He succeeds Mr. Paul Gilbert.

NFBTE technical officer

In order to play a more active part in the sorting and dissemination of technical information to its members the National Federation of Building Trades Employers has appointed Mr. E. Thompson, B.SC, as Technical Officer of the Federation. Mr. Thompson has been at the Building Research Station for 14 years, the last five as Experimental Officer. He took up his duties at the NFBTE on 1 March.

In addition to the preparation of technical information Mr. Thompson will service the Federation's technical committees, and will lay the foundations of a National Federation technical service.

With the increasing collaboration between the Institute and the NFBTE on technical matters this appointment is very welcome. We look forward to even greater collaboration between our own Technical Department and the Federation.

BRS Digest 131: External rendered finishes

This *Digest* was recently issued by HMSO, and it now appears from correspondence since received at the Building Research Station that some of the statements in it have led to some misunderstanding of its intention.

In the penultimate paragraph of the *Digest* it is stated: '... there is not yet sufficient long-term experience with aerated cement-sand mortars used as rendering mixes for any recommendations to be made'. It appears that this statement has been read as though it were applicable to the use of plasticisers in mortars used as undercoats for internal plastering and as brickwork mortars. This is not so; the reason for the statement relating to rendered mixes, i.e. risk of rain penetration, does not apply to the use of plasticised mortars for internal plastering and for brickwork mortars. The latter is dealt with in *Digest* 126 and there is ample evidence of satisfactory behaviour for both uses.

The reference to masonry cements in the preceding paragraphs of the *Digest* has also brought comment because of the difficulty of knowing in the absence of a British Standard the composition of the masonry cement. In choosing a mix based on masonry cements for rendering the user should therefore obtain the assurance of the manufacturer that the mixes recommended by him are in fact appropriate alternatives to the cement: lime: sand mixes recommended in the Table in the *Digest*.

Manchester Building Centre

Work is now being completed at 113–115 Portland Street, Manchester, where three floors are being completely modernised to form the new Building Centre for the North of England. In preparation for the opening, the offices of the Centre have moved into these premises from their temporary office in the College of Science and Technology.

The building industry and professional societies have been keen to have a Building Centre in the North for some time and the Manchester Building Centre, started by its Director, Mr. John P. Griffiths, has the support of The Building Centre, London, to which it is affiliated.

Following the formation of the company last September, there has been very considerable demand from manufacturers for display space within the Centre and visitors will be able to see a wide range of the latest building products and materials, many of them actually in use.

The Centre is intended primarily for the use of all the people who are in any way connected with the inspection and specification of materials for building. It will provide an unbiased information service and a permanent but constantly changing exhibition of building products. Space has been reserved for visiting exhibitions and for meetings, lectures and technical demonstrations.

Litter bin competition

The Council of Industrial Design, in association with the Ministry of Housing and Local Government and the Department of Health for Scotland, is to hold a Litter Bin Competition for which manufacturers are invited to submit new designs. This is announced to meet the demand for litter bins created by the Litter Act, 1958, and to stimulate the production of inexpensive well-designed bins for both the street and public open spaces.

The competition is limited to *bona fide* manufacturers both willing and able to execute orders to the designs submitted. These must be in prototype form, or pre-production samples, and accompanied by a short explanatory report.

Those winning designs which, in the judges' opinion, reach a sufficiently high standard to be included in the COID's Design Index will be on view to the public at a special exhibition to be held on a prominent site in central London. The widest publicity will be given to this and, in particular, viewing by public authorities and other buyers will be invited.

The closing date for applications will be 1 June 1960. Full details, conditions and entry forms from Mr. Peter Whitworth, Council of Industrial Design Street Furniture Panel, 28 Haymarket, London, SW1.

Modular co-ordination at home

In view of the widespread interest in modular co-ordination, the British Standards Institution has issued the following note on the work of Technical Committee B/94 – 'Modular Co-ordination in Building'.

Technical Committee B/94 is widely representative of all sides of the building industry and has two main tasks: to prepare a British Standard for modular co-ordination and to represent the United Kingdom point of view within the International Organisation for Standardisation.

The British Standard known as BS 2900 – 'Modular Co-ordination in Building' – is being prepared in several parts. Part I, 'Glossary', has already been published. In April 1959 the committee completed a draft for Part II, called 'The module and the range of modular sizes for building components', and circulated it for comment. The main proposals in this draft were that the size of the module should be 4 inches and that the range of modular sizes should be whole multiples of the module. From the comments received it is clear that the industry is at present undecided in its views as to the dimensional basis which should be adopted for the co-ordination of building components in this country. Until agreement on this vital question is reached, it is not possible, under BSI procedure, for Part II of the standard to be published.

The technical committee are unanimous in wishing to see some method of co-ordinating the dimensions of building components introduced in the United Kingdom. They have instructed one of their sub-committees to analyse the problems involved and to try to find a basis on which agreement is likely to be reached. They realise this will take some time to accomplish and they hope that in the meanwhile research, experiment and discussion will continue and that all the organisations and individuals concerned will direct their best efforts towards reaching agreement.

ANTHONY WILLIAMS [*A*]

Diary of Events

THURSDAY 12 MAY, 6 p.m. Library Group. Mr. Mark Girouard will introduce an evening on the work of Sir Charles Barry.

TUESDAY 17 MAY, 6 p.m. *Planning and Controlling City Growth*, by Senhor Luís de Guimarães Lobato [*Hon. Corresponding Member, Portugal*].

THURSDAY 2 JUNE, 6 p.m. *Tall Buildings in New York*, by Mr. Ely Kahn. (In conjunction with the Yerbury Foundation.)

SATURDAY 4 JUNE to MONDAY 6 JUNE inclusive.
RIBA offices and library closed for Whitsun holiday.

WEDNESDAY 15 JUNE to SATURDAY 18 JUNE.
British Architects' Conference, Manchester.

THURSDAY 16 JUNE, 7 p.m. Architects' Christian Union.
Mr. Ben Allen. Refreshments 6.30 p.m.

TUESDAY 21 JUNE, 6 p.m. General Meeting. Council Election Results.
Presentation of 1959 London Architecture Bronze Medal.

THURSDAY 23 JUNE to SUNDAY 26 JUNE.
Cost Control and Management Appreciation Conference, St Andrews.

Practice Notes

Edited by Charles Woodward [*A*]

IN PARLIAMENT

Three-bedroom House (Costs). Asked what was the average price of a three-room council house at the latest available date; and what was the total cost of interest and repayment charges in respect of such a house; assuming loans raised respectively over 20, 40 and 60 years at the rate of interest charged by the public works loan board, at the end of the relevant quarter, the Minister of Housing and Local Government replied: On the assumption that the hon. and learned Member is referring to a three-bedroom house, the answer to the first part of the question is £1,547 for the fourth quarter of 1959; and to the second part, £2,623, £3,969 and £5,521, respectively. (16 March 1960.)

Hospitals. Design Unit. Lord Balniel asked the Minister of Health what studies have been prepared and published by the architectural, engineering, and medical design unit set up within his Department in 1954; at what date the studies were published; and what studies are in course of preparation.

Mr. Walker-Smith: A bulletin on operating theatre suites was published on 9 January 1958. Bulletins on residential accommodation for nurses, consultative out-patient departments, and kitchens are in course of preparation, as are some engineering studies and interim building notes on several other hospital departments. An out-patient department and kitchen are to be built as the first of a number of development projects. (18 March 1960.)

Local Government. Buildings of Architectural or Historic Interest. Mr. Parker asked the Minister of Housing and Local Government and Minister for Welsh Affairs whether he will strengthen his Advisory Committee on buildings of architectural or historic interest, in view of their failure to advise against the demolition of the Central Hotel, Cambridge, by King's College.

Sir K. Joseph: No. My right hon. Friend has full confidence in his Advisory Committee, who on this occasion, as always, gave him careful and helpful advice. (22 March 1960.)

Local Government. Architects. Commander Donaldson asked the Minister of Housing and Local Government and Minister for Welsh Affairs how many qualified architects are employed on his staff who are unestablished and who have been so employed from 10 to 15 years; and if it is now his policy that they should be established.

Mr. H. Brooke: Five, all of whom in accordance with general Civil Service rules have had opportunities to compete for established posts. (29 March 1960.)

Historic Buildings. Mr. Robert Cooke asked the Minister of Housing and Local Government and Minister for Welsh Affairs when the survey for the list of buildings of special architectural or historic interest for the city of Bristol under Section 30 of the Town and Country Planning Act, 1947, was started by his investigator in the field; when it was completed by the investigator; when the statutory list was issued; and what were the reasons for the delay.

Sir K. Joseph: The survey was started in March 1947, and completed in November 1949. The statutory list was issued in January 1959. This exceptional delay occurred mainly because there was particular difficulty in obtaining names and addresses of the owners and occupiers of the buildings on the list, and because the small staff had much other work to do as well.

Mr. Robert Cooke asked the Minister of Housing and Local Government and Minister for Welsh Affairs what steps have to be taken between the completion of the investigator's survey and the issue of a statutory list under Section 30 of the Town and Country Planning Act, 1947; and whether he is satisfied with the rate at which lists are now being issued.

Sir K. Joseph: A provisional list based on the investigator's report is sent to the local authority and to preservation societies, and their comments are considered. The name and address of the owner and occupier of every building on the list has to be obtained and they are given an opportunity to make representations. Progress with this very large task is restricted by the need for economy in staff. There was a substantial increase in the number of lists issued in 1959 and my right hon. Friend hopes for a further improvement this year. (29 March 1960.)

TENDERS FOR PLUMBING AND HEATING CONTRACTS

The Practice Committee's attention has recently been drawn to the concern which is felt in some quarters about the practice of treating the installation of hot water, cold water and gas services as part of the tender for heating work and for such work to be set out as a separate item in the bills of quantities. It is understood that in some cases plumbing services are described as 'engineering services' and the builder or plumber may not be given the opportunity of tendering. This has given rise to a number of embarrassing and frustrating demarcation disputes in various parts of the country.

The Practice Committee feel that this is not a matter on which they could attempt to dictate any policy to members who are asked to deal with problems of this sort. The Committee recognise that circumstances vary widely from place to place according to local conditions and therefore consider that members confronted with these issues should deal with each case on its own merits and should exercise their own discretion, having regard always to local custom and the circumstances of the particular job. Difficulties which so often have arisen can be overcome if the architect emphasises when such tenders are being sought that full account must be taken of local conditions of practice.

MINISTRY OF HOUSING AND LOCAL GOVERNMENT

Control of Advertisements. Circular 11/60 dated 18 March draws attention to the publication of the voluntary code of standards for advertisements on business premises published by the Consultative Committee set up under the auspices of the Advertising Association.

The code deals only with advertisements of the specified classes which within the terms of regulation 12 of the Town and Country Planning (Control of Advertisements) Regulations, 1948–60 may be displayed on business premises without consent being first obtained from the local planning authority. It is for local planning authorities to consider whether they should take action to get rid of those advertisements which are not covered by the code and which, because they are badly sited, badly arranged, too numerous, or too large, spoil the street scene or the appearance of individual buildings.

Copies of the code of standards are obtainable from the Secretary, Consultative Committee, 1 Bell Yard, London, WC2.

MINISTRY OF LABOUR

Work of Engineering Construction. Definition Widened. Regulations extending the definition of the expression 'work of engineering construction' in Section 152 of the Factories Act, 1937, were laid before Parliament on 17 March 1960 by the Minister of Labour. They will come into operation on 15 May 1960.

Under these regulations works which will now also be included within the definition are the construction, structural alteration or repair (including re-pointing or repainting) or the demolition of any steel or reinforced concrete structure other than a building, any road, airfield, sea defence works or river works, and any other civil or constructional engineering works of a similar nature to any of these works.

The definition will not, however, apply to these works if they are carried on in a factory as defined in the 1937 Act, or on premises to which that Act applies, or on a railway or tramway.

The effect of the regulations is that from 15 May next the requirements of the Factories Acts about sanitary conveniences, and notifying sites of operations, accidents and industrial diseases among others will apply to these classes of work. The new safety regulations for construction work, which the Minister proposes to make will also apply to them. (S.I. 1960 No. 421. The Engineering Construction (Extension of Definition) Regulations, 1960.)

LAW CASES

Lynn Estates (Southern) Ltd. v. Gardiner. Building Contract. Fluctuations. A clause in a contract between plaintiff builders and defendant owner provided for payment by four instalments, subject to the production of the architect's certificate, and each certificate was to certify the increase or decrease on the contract price consequent on fluctuations in the cost of labour, materials, etc. Three instalments were paid without the architect's certificates and the demand for the fourth certificate included a demand for an extra £9 17*s.* 11*d.* due to rise in labour rates of pay for which there was no architect's certificate. The defendant refused to pay this sum and the builders brought an action to recover it. The court dismissed the action. (THE ESTATES GAZETTE, 5 March 1960.)

Enforcement Notice. Town and Country Planning. Hamblett v. Flintshire County Council. The plaintiff used the forecourt of his hotel for trading during the summer of 1950 and did not so use it in 1951 and 1952. Since May 1953 he had used the forecourt for trading every summer. An enforcement notice was served in 1957, requiring discontinuance of trading. The plaintiff started trading again in May 1959, and a fresh enforcement notice was served on 19 June 1959. The plaintiff did not cease trading and the Justices convicted him for failing to comply with the notice.

On appeal to the Divisional Court the case was remitted to the Justices for finding whether there had been a material change of user. (THE ESTATES GAZETTE, 5 March 1960.)

INSURANCE UNDER CLAUSE 15(a) OF THE RIBA FORM OF CONTRACT

Arising out of the case of Gold *v.* Patman and Fotheringham Ltd. (1958 2 All E.R. 497) the Practice Committee after consultation with members of the Joint Consultative Committee of London Architects, Quantity Surveyors and Builders have agreed that the difficulty which was encountered in that case might be overcome by the insertion in bills of quantities of a clause on the following lines:

'Provide the sum of £ for premium payments for insuring pursuant to Clause 15(*a*) of the Contract in the joint names of the Employer and the Contractor (to the extent of £) against all claims by third parties against either the Employer or the Contractor arising through the works included under this Contract whether such claims arise under any statute or at common law (or under an award made under the London Building Acts) not being claims made in respect of matters for which the Contractor is liable under Clause 14(*a*) and 14(*b*) of the Contract.'

The Committee would, however, point out that an alternative to the insertion of such a clause in the bills of quantities would be for the building owner himself to take out a suitable insurance cover on his own behalf. It is emphasised that the object of the insurance whether taken out as a requirement in the bills of quantities or by the building owner himself is to safeguard the building owner against claims by third parties for damage or injuries which have been brought about other than by the negligence of the contractor or his agents or servants.

Notes and Notices

NOTICES

Ninth General Meeting, Tuesday 21 June 1960 at 6 p.m. The Ninth General Meeting of the Session 1959–60 will be held on Tuesday 21 June 1960 at 6 p.m. for the following purposes:

To read the Minutes of the One Hundred and Twenty-Second Annual General Meeting held on Tuesday 3 May 1960; formally to admit new members attending for the first time since their election.

To read the report of the Scrutineers appointed to examine the voting papers for the election of Council for the Session 1960–61.

To present the London Architecture Bronze Medal 1959. (Light refreshments will be provided before the meeting.)

Session 1959–60. Minutes VI. At the Sixth General Meeting of the Session 1959–60, held on Tuesday 22 March 1960 at 6 p.m., Mr. Basil Spence, OBE, TD, ARA, ARSA, President, in the Chair.

The meeting was attended by about 105 members and guests.

The Minutes of the Fifth General Meeting held on Tuesday 8 March 1960 were taken as read, confirmed and signed as correct.

The following members attending for the first time since their election were formally admitted by the President: *As Fellows:* H. Norman Haines, F. H. Newman. *As Associates:* T. N. Ainscow, R. A. Barber, H. K. Driver, V. O. Hughes, D. G. Webster.

Mr. Peter Trench, OBE, TD, B.SC, Director, the National Federation of Building Trades Employers, having read a paper on 'Looking Ahead at the Building Industry', a discussion ensued and on the motion of Mr. Donald Gibson, CBE [*Vice-President*], seconded by Mr. Roger Walters [*A*] a vote of thanks was passed to Mr. Trench by acclamation, to which he briefly responded. The proceedings closed at 8 p.m.

Session 1959–60. Minutes VII. At the Seventh General Meeting of the Session 1959–60 held on Tuesday 5 April 1960 at 6 p.m.

Mr. Basil Spence, OBE, TD, ARA, ARSA, President, in the Chair.

The meeting was attended by about 500 members and guests.

The Minutes of the Sixth General Meeting held on Tuesday 22 March 1960, were taken as read, confirmed and signed as correct.

The President spoke on the presentation of the Royal Gold Medal 1960 to Professor Pier Luigi Nervi (Italy), and called upon Mr. Ove Arup, CBE, MICE, senior partner in the firm of Messrs. Ove Arup and Partners, Civil Engineers, The Hon. Lionel Brett [*F*], Professor A. L. L. Baker, MICE, of the Department of Civil Engineering, Imperial College of Science and Technology, University of London, and Professor Robert H. Matthew, CBE, ARSA [*F*], who also spoke.

The President then invested Professor Nervi with the Royal Gold Medal 1960.

Professor Nervi expressed his thanks for the honour conferred upon him.

The proceedings closed at 6.57 p.m.

The RIBA Appointments Department. Members and Students of the RIBA and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable they should obtain from the Secretary an application form, which when completed and returned

to the Institute will enable the Department either to send the applicants particulars of vacancies suitable to their qualifications and requirements or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

The RIBA Appointments Department are, as in previous years, compiling a list of architects in London and the home counties who are willing to employ students, British and from abroad, during the summer vacation of 1960. This list will be obtainable on request at the RIBA from 16 May.

British Architects' Conference, Manchester, 15 to 18 June 1960. A cordial invitation is extended to all members and Students of the RIBA, the Allied Societies and the Architectural Association to attend the Conference to be held at Manchester from 15 to 18 June. Full details of the programme and the application form were enclosed with the April issue of the JOURNAL sent to members in the United Kingdom. Students and others requiring a programme should apply to the Secretary, RIBA.

Application forms should be completed and sent to the Secretary, RIBA, as soon as possible, but in any case *not later than 25 May*.

Members are again reminded that hotel reservations should be made as soon as possible as the hotels could not guarantee to keep rooms later than the end of March. A list of hotels in and around Manchester is included in the Conference programme.

The Acceptance of Pupils and Junior Assistants and the Probationership of the RIBA. The Board of Architectural Education have noticed that the practice still persists of members accepting pupils or junior assistants without satisfying themselves that such pupils or junior assistants have reached the necessary standard of general education for the Probationership. Members are reminded that it is most important that they should not take boys or girls into their offices unless they possess one of the qualifications laid down.

A list of recognised examinations can be obtained on application to the Secretary, RIBA.

London County Council. Qualifying Examination for the Office of District Surveyor. An examination for the certificate of proficiency to perform the duties of district surveyor will be conducted in London in the week commencing 10 October 1960. The minimum age limit for candidates is 25.

Possession of this certificate is necessary for appointment to positions as District Surveyor (salary scales £1,850 to £3,000 a year) or as Assistant District Surveyor (present salary scale £1,295 to £1,535 a year, plus £61 10*s*. a year).

Apply to the Architect to the Council (AR/ED/RWF), County Hall, Westminster Bridge, SE1, for application forms and further particulars. Completed applications to be submitted before 1 September 1960.

Board of Architectural Education

The Artists' General Benevolent Institution Maintenance Scholarship. The Royal Institute of British Architects offer for award in 1960 the following Maintenance Scholarship in Architecture, tenable from 1 October 1960: The Artists' General Benevolent Institution Maintenance Scholarship of a maximum of £125 per annum, available in the first instance for one year and renewable for two further periods of one year each.

(The Artists' General Benevolent Institution Maintenance Scholarship is open to orphans or sons or daughters of an architect or artist.)

The Scholarship is intended to enable a promising student, whose parents or guardians have not the necessary means, to attend an approved course at a School of Architecture recognised for exemption from the RIBA Examinations. A Student already taking such a course is also eligible to apply for the Scholarship. The Scholarship is available only for a student who is a British subject by birth or naturalisation.

Applications for the Scholarship (in accordance with the regulations for applications) must be made to the Secretary to the Board of Architectural Education, RIBA, 66 Portland Place, London, W1. The closing date for receipt of applications duly completed is 27 *May* 1960.

Competitions

Note. An applicant for the conditions of a competition must state his registration number.

New County Offices at Newtown St Boswells. The Roxburgh County Council invite architects practising or resident in Scotland to submit designs for new County Offices at Newtown St Boswells.

Assessor: Mr. W. H. Kininmonth, RSA, FRIAS [*F*].

Premiums: 500 gns., 300 gns., 200 gns.

Last day for submitting designs: 31 October 1960.

Conditions may be obtained from the County Clerk, County Offices, Newtown St Boswells, Roxburghshire. Deposit £2 2*s*.

Burgh of Dumbarton Architectural Competition: Central Area Redevelopment. Last day for submitting designs: 30 May 1960. Full particulars were published in the JOURNAL for March, page 182.

New Civic Buildings, Neath. Last day for submitting designs: 29 October 1960. Full particulars were published in the JOURNAL for March, page 181.

County Council of Dunbarton: New County Council Offices. Last day for submitting designs in the first stage: 30 July 1960. Full particulars were published in the JOURNAL for March, page 182.

New Hospital at Boston, Lincolnshire. Last day for questions: 16 May 1960. Last day for submitting designs in the first stage: 30 September 1960. Particulars were published in the JOURNAL for March, page 182.

The Westminster City Council intend to promote an architectural competition for redevelopment for housing purposes of a site bounded by Vauxhall Bridge Road, Churton Street, Tachbrook Street and Rampayne Street, having a total area of about 13 acres.

Assessor: Mr. Philip Powell, OBE, AADIPL. [*F*]. Particulars will be published as soon as available.

Metropolitan Cathedral of Christ the King, Liverpool. Full particulars were given in the JOURNAL for September, page 404, but in addition it should be noted that *corporate members of the overseas societies allied to the RIBA are also invited to compete*.

Last day for submitting designs: 4 p.m. on 3 August 1960.

A Competition of Ideas for the Development of a Residential Zone at Elviria, Costa del Sol, Spain. This competition has been approved by the IUA and prizes of up to 250,000 pesetas are offered. Closing date for registration: 30 May 1960. Further details can be obtained from: Concurso Internacional Elviria, Apartado de Correos No. 220, Malaga, Spain.

COMPETITION RESULT

Taunton: County Offices

1. (£1,500) Leonard Tatum [*A*] of Goodwin and Tatum.
2. (£1,000) Sir John Burnet, Tait and Partners [*F/AA*].
3. (£500) M. Handley [*A*].

Commended: A. H. R. Weitzel [*A*]; Barrie Dewhurst [*A*].

Allied Societies

Changes of Officers and Addresses

Devon and Cornwall Society of Architects. Cornwall Branch. Chairman: P. J. Barbary, OBE, TD, GM [*F*].

Liverpool Architectural Society. President: Ronald Bradbury, AMTPI [*F*].

Ceylon Institute of Architects (founded 1957; allied 1960). President, Herbert E. Gonsal [*F*]. Hon. Secretary, A. Panditaratna [*A*], 10–12 Regent Buildings, Fort, Colombo, Ceylon.

Institute of South African Architects. President-in-Chief: G. P. Quail.

West Yorkshire Society of Architects: RIBA Architecture Bronze Medal. Nomination forms in respect of the above award for a building of exceptional merit built during the three-year period ending 31 December 1959 within the area of the Society are obtainable from the Hon. Secretaries at 11A Cavendish Road, Leeds 1. Nominations must be submitted not later than 21 June 1960.

Notes from the Council Minutes

Meeting Held on 5 April 1960

Appointment of RIBA Representatives

(*a*) *RIBA Architecture Bronze Medal Jury. Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects.* F. B. Pooley [*F*] in place of J. C. Barker [*A*] (appointed by the Council 8.3.60) who was unable to serve.

(*b*) *Ipswich Civic College. Council for Art.* B. Haward [*A*]. *Council for Building.* P. Barefoot [*A*]. The appointments are for one year.

(*c*) *Darlington College of Further Education: Board of Governors.* T. V. Deas [*A*] (for a further year).

Provinces of the Institute of Architects of Malaya and the Federation of Malaya Society of Architects. Formal approval was given to the transfer of Penang from the province of the Institute of Architects of Malaya to that of the Federation of Malaya Society of Architects.

Manchester Society of Architects Bronze Medal Award. The Manchester Society of Architects Bronze Medal for the period 1956–9 was awarded to L. C. Howitt, MTPI [*F*], City Architect, Manchester, for crematorium and earth burial chapels and registrar's block, Blackley Cemetery, Manchester.

Membership. The following members were elected: as Fellows 11; as Associates 70.

Students. 28 Probationers were elected as Students.

Applications for Reinstatement. The following applications were approved: as Associates: George James Douglas Cowley, Thomas Alexander Larkin, Mrs. Stella Samuel.

Obituary. The Secretary reported with regret the death of the following members: William Adams Delano (*Hon. Corresponding Member*, USA), Charles Lovett Gill [*F*], Geoffrey Stanley Harrison [*F*], Sidney Hyde [*F*], Sir William F. V. M. Milner [*F*], William Curtis Green, RA [*Retd. F*], Benjamin William Stuttle [*Retd. F*], Arthur Benjamin Dailey [*A*], Bernard Lawrence William Frank [*A*], Ieuan Roland Jones [*A*], Richard Leslie Passmore [*A*], Bernard Robertson Saunders, MC [*Retd. A*], Arthur Kingzett Clark [*L*], Morton Octavius Cleland [*L*], Anthony John Higginbottom [*L*], Charles Oliver [*L*], Frank John Smith [*L*], Frederick Sutton-Smith [*L*], Frederick George Cole [*Retd. L*], Harry George Hewitt [*Retd. L*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

General Notes

Howard Memorial Medal. The Howard Memorial Medal was presented to the distinguished American architect and town planner, Mr. Clarence Stein, by the President of the Town and Country Planning Association, the Rt. Hon. Lord Salter, at a luncheon on 28 March. The medal is presented from time to time to those who have been consistent supporters of the planning principles of Sir Ebenezer Howard and have made notable contributions to their advancement.

Hanover Exhibition, Manchester. An exhibition illustrating the rebuilding of Hanover will be held in the Entrance Hall of the Manchester College of Science and Technology from 17 to 26 May inclusive, between the hours of 10 a.m. and 8.30 p.m. each day except Sunday 22 May.

The inner City of Hanover has been replanned and rebuilt within the short space of ten years under the direction of Professor Rudolf Hillebrecht, who is one of the principal speakers at a symposium to be held at the exhibition on 18 May at 2.45 p.m. Other speakers will include Mr. Arthur Ling and Professor Sir William Holford. Admission to the exhibition is free but tickets for the Symposium, including tea, are to be obtained from the Registrar, The Manchester College of Science and Technology, Sackville Street, Manchester 1, price 5*s*.

National Industrial Design Council of Canada. Mr. John C. Parkin [*F*] is now Chairman of the National Industrial Design Council of Canada. This body, which operates under the National Gallery of Canada, has similar objectives to our Council of Industrial Design.

New Building Materials. The Building Centre is to hold an exhibition of 'New Building Materials' at 26 Store Street, London, WC1, from Tuesday 17 May to Saturday 28 May.

This will be an exhibition of samples on similar lines to that held last year, the products shown being new in the last few months and, in some cases, being exhibited for the first time.

There will be no manufacturers' representatives present during the exhibition, but members of The Building Centre technical staff will be available to answer inquiries and to distribute literature.

Cost Control and Management Appreciation Conference. The last of the series of conferences on methods of the control of building costs at the design stage is to be held at the University of St Andrews from Thursday 23 until Sunday 26 June 1960.

The conference, which is sponsored by the Cost Research Liaison Committee of the RIBA and the Royal Institution of Chartered Surveyors, will be on the same lines as those already held at Great Missenden, Bristol, York and Manchester. The conference arrangements are being made jointly by the RIBA and the Royal Incorporation of Architects in Scotland. It is primarily intended for the Scottish Region, but applications from those in other parts of the country who wish to avail themselves of this last opportunity to attend an RIBA conference on cost planning will be welcomed.

Applications for the conference, which is residential, are invited from architects, quantity surveyors and builders, and applicants are asked to write to the Secretary to the Management Committee, RIBA, 66 Portland Place, London W1, not later than Monday 6 June. Please state your age, professional or other qualifications, where you work and in what capacity. If you already have experience in applying cost-control techniques, please give brief particulars. The conference fee is eight guineas inclusive of accommodation.

Appointment of a Permanent Director, International Castles Research Institute. The Institute wishes to appoint a permanent Director to have charge of the work of the Institute under the general instruction of the Committee.

Candidates should be between the age of 25 and 45 on 1 May 1960; they should be of good general education and have administrative ability. An expert knowledge of castles and historic houses and their preservation is desirable, but not essential. A good knowledge of two of the official languages of the Institute (French, English and German), and some knowledge of the third, is essential. The appointment will be made during the summer, 1960.

Living quarters will be provided free, and the Director must reside at the headquarters of the Institute.

Applications and inquiries should be sent to the Director, International Castles Institute, Schloss Rapperswil, SG, Switzerland.

Architects' Christian Union. A reception took place on Thursday 31 March in the Henry Jarvis Hall, the speaker being the Rev. K. F. W. Prior. Mr. E. A. S. Houfe [*F*] was in the chair. The subject of the address was 'Jesus Christ as Prophet, Priest and King', and the speaker attempted to answer the question, 'Has God anything to say to *me*?'

'Architecture Today' Exhibition. As previously announced the RIBA and the Arts Council of Great Britain are arranging a selective exhibition showing work by British registered architects at the Arts Council Gallery, 4 St James's Square, London, SW1, in July 1961, coinciding with the Congress of the International Union of Architects which is meeting in London at that time.

Particulars and conditions of entry are as follows:

1. The exhibition will be highly selective and aims at showing the best work of the past ten years. Size will be no criterion.

2. Examples for inclusion in the Exhibition will be chosen by the Selection Committee (whose decision is final) from the material submitted for preliminary consideration. The Selection Committee consists of: The Hon. Lionel Brett [*F*], Sir Hugh Casson, RDI [*F*], Mr. John Killick [*A*], Mr. J. M. Richards, CBE [*A*], Mr. John Piper [*Hon. A*].

3. British registered architects, firms of architects, and architects' departments may submit up to three examples of their work.

4. Buildings must have been completed since 1951. Projects of special interest designed since 1951 will also be eligible.

5. Those who wish to have work considered for inclusion must apply for an entry form(s) which must be completed and accompany

each submission. Details of method of submission will be given on these forms, but briefly: material to be submitted (including drawings) must be in the form of photographs which must be fully referenced in order that the organisers can order prints direct from the photographers. Brief notes on the examples will also be required.

6. Applications for form(s) should be made to the RIBA not later than 30 June (envelopes marked 'Architecture Today Exhibition', please).

7. Material for preliminary selection must reach the RIBA between 1 and 31 October 1960.

Obituaries

Maxwell Ayrton [*F*]
died on 18 February 1960, aged 85.

Mr. Ayrton's earlier work was carried out in partnership with the late Sir John William Simpson, KBE [*Past President*]. This included additions to Haileybury and Lancing colleges; art galleries for the Corporation of Glasgow; Cartwright Memorial Hall, Bradford; the National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury; and offices of the Crown Agents for the Colonies, Westminster.

In 1924 the partners were responsible for the British Empire Exhibition and stadium at Wembley, in association with Sir Owen Williams as consulting engineer. A few years earlier, the partners had designed the British Pavilion for the Centenary Exhibition at Rio de Janeiro.

Among the several bridges and road works for which Mr. Ayrton was responsible were Twickenham Bridge, Slough southern bypass, and bridges and viaducts on the North Circular Road, at various points on the Great North Road, and in the Highlands of Scotland. In building the Lea Valley Viaduct he again worked with Sir John Simpson in association with Sir Owen Williams.

In later years Mr. Ayrton was in partnership with Mr. Courtenay Theobald [*F*] (who has kindly contributed the appreciation printed below). Buildings designed by the partners included some for the Central Public Health Laboratories at Colindale; the National Institute for Medical Research, Mill Hill; the London School of Medicine, Tavistock Place, WC1; the Royal Free Hospital School of Medicine, Teaching and Research Laboratories; and the rebuilding after war damage of several blocks of Bedford College for Women, Regent's Park.

In 1920 he worked with J. S. Gibson [*F*] and W. S. A. Gordon [*F*] as joint architects for the borough of Woolwich on a housing scheme at Eltham.

Mr. Ayrton was solely responsible for the following works: St Andrew's Presbyterian Church, Cheam, Surrey; the Presbyterian Church of England church house, Tavistock Square, WC1; an extension of the Medical Research Building at Hampstead; Derby Health Centre and stadium; The Home Farm and water tower, Wappingthorn, near Steyning, Sussex; The Grange Farm, Hackbridge, Surrey; Horseferry Road Post Office, SW1.

Mr. Courtenay Theobald [*F*], who was in partnership with Mr. Ayrton, writes:

'Maxwell Ayrton was always young in heart. In his prime one felt that he could never grow old, and even in his old age he had that direct sympathy and understanding which clears away the barriers between old and young. He was a man of strong feeling, impulsive, generous, with a candour and directness that could be devastating. It was his custom to ignore theories and hypotheses – he had no interest in the abstract or the theoretical – and to come instantly to the heart of a matter, naming the essence of a problem, the inspiring idea or the cause of trouble in a single word. This directness and singleness of mind lay at the base of his character.

'His personal charm and his mental and physical agility were extraordinary – in his younger days he was fond of gymnastics and jiu-jitsu. Everything he did was done quickly: thinking, acting and even drawing. He would come home from a month's summer holiday with thirty or forty drawings of buildings and landscape in pencil, charcoal and water-colour.

'Such drawings as these, a long series of flower drawings, and the making of picture-books, bound by himself, for his children and grandchildren occupied much of his leisure. Another of his great interests was his lovely house in Church Row, Hampstead, in which he lived for almost fifty years. This gave him unfailing pleasure and provided a perfect background for his liberal hospitality and for the furniture, pictures and other things that he and his wife collected over the years with such discernment.

'During the 1914–18 war he served in observation balloons, enlisting as able seaman and reaching the rank of lieutenant in the RNAS, later being absorbed into the RFC with the rank of major. Stationed in the Suez Canal and at Aden, he seized the opportunity of sick leave in Cairo to make a series of drawings of Cairo and of historic subjects in the vicinity.

'For more than fifty years he was a member of the Arts Club, where he is remembered with affection. I wish that a personal note could have been written for the JOURNAL by one of his many friends there, but he survived nearly all of them.

'His life was rich in creative work and rich in friendship.'

Arthur Gilbert Berry [*F*]
died in January 1960, aged 76.

Mr. E. R. Crane, DSC [*F*], with whom Mr. Berry was in partnership (Messrs. Berry, Crane and Noble [*FF*]), writes:

'A. G. Berry was born in 1883 at Thorpe next Norwich. He went to school at the Norwich Middle School and served his articles with Mr. G. J. Skipper [*F*] when such work as the Norwich Union Life Office and Sennowe Park, Norfolk, were in the office. Staying on until about 1907 he went to London and joined Messrs. W. Henry White [*F*] and Sons of Cavendish Square.

'At the start of the 1914 war he joined the Artists' Rifles and was later commissioned in the Royal Sussex Regiment, losing the sight of one eye on the Somme in 1916. He was transferred to instructor duties at Hythe and later to the Royal Flying Corps as machine-gun instructor, subsequently being commissioned as squadron leader, RAF.

'On demobilisation he returned to Norfolk and in 1920 entered into partnership with the late Claude S. Buckingham, FSI, working first at Sheringham and in 1926 returning to Norwich. During this partnership, which I joined in 1935, a considerable practice was built up with Messrs. Bullards Brewery, for whom we built or altered about 15 public houses and a large bottling store, which he also extended in 1956. He carried out some beautiful interiors in the style of Adam at Rackheath Hall for Sir Edward Stracey, several factories and numerous private houses.

'In October 1939 he rejoined the Royal Air Force as a damage assessor and again rose to squadron leader in charge of the department, when he was invalided out at the age of 61.

'After the war, we built up the practice and took into partnership Mr. J. Baillie Noble [*F*] in 1950, with whom I am continuing the practice. During the post-war years Mr. Berry has been responsible for war damage work, factories, extensions to Carrow Road Ground for Norwich City Football Club, which he laid out in 1935, and his final job, for which he had a great affection, almshouses at Blofield for the J. and M. Brewster Trust.

'Mr. Berry was a fine sportsman. In his youth he played football for the county and retained an enthusiasm for the game until the end. He was a useful golfer and at one time a member of Sheringham Golf Club; but his chief love was for yachts and the water. He served a term as Commodore of the now defunct Yare and Bure Sailing Club and later of the Royal Norfolk and Suffolk Yacht Club, and entertained the Duke of Edinburgh in that capacity at the inaugural meeting of Dragons for the Duke of Edinburgh Cup. Later he served as Chairman of the Norfolk and Suffolk Yachting Association.

'He was a keen freemason and churchman.

'We, whom he leaves behind, will always remember him as a kindly gentleman, a wise friend and a merry companion. He was in great demand as a witty public speaker and in private conversation his fund of anecdote was inexhaustible.

'At work his patience and forbearance were remarkable and in the 33 years during which I served for and with him, I remember only one occasion when his calm was ruffled. On the building site the men loved and respected him, for he was ever calm, reasonable and fair and yet never lost control of works or workers.

'In later years he was in great demand as an arbitrator with a keen analytical mind, very fair and patient.

'Mr. Berry twice served on the RIBA Council as representative of the East Anglian Society of Architects and twice also served as President of the Norfolk and Norwich Association of Architects, being at the same time their representative on the Allied Societies' Conference.'

Henry Munro Cautley, FSA [*Retd.A*]
died on 13 November 1959, aged 83.

Mr. Cautley was educated at Ipswich School and articled in Ipswich, studying in London and Yorkshire. He won the Silver Medal for the AA Class of Design in 1900. Mr. Cautley commenced practice in 1901 in Ipswich with Mr. Bishop and was joined in partnership in 1928 by the late Mr. Leslie Barefoot, GC [*A*]. He retired from practice in 1957.

The son of the rector of Westerfield, Suffolk, Mr. Cautley was very interested in ecclesiastical architecture. He was diocesan surveyor from the establishment of the diocese of St Edmundsbury and Ipswich in 1914 until 1947. In 1937 he published *Suffolk Churches and their Treasures*, containing hundreds of the author's own photographs. Other publications of his were *Norfolk Churches* and *Royal Arms and Commandments in our Churches*. Through the joint estates of Mr. Cautley and his wife new hand-carved pews have been installed in Mildenhall Church, Suffolk.

Among the many churches restored and rebuilt under Mr. Cautley's supervision was a new recessed gateway at St Margaret's Church, Ipswich: the gateway was his own design.

His works included a number of additions to the East Suffolk and Ipswich Hospital; the Bartlet Convalescent Home at Felixstowe (for which he made use of an old fort); building for Ipswich Sanatorium, Ipswich and Barham Isolation Hospitals and Ipswich School; motor garages at Ipswich and Newmarket; and Ipswich public library. Cautley and Barefoot also designed Lloyds Bank, Cambridge.

A talent he found useful in his professional life was his skill as a water diviner. In his younger days he was a pioneer of colour cine photography in the district.

In 1958 he was elected a vice-president of the Suffolk Institute of Archaeology, of which he was a member for many years.

John Holliday Haughan [*F*]
died on 29 February 1960, aged 63.

Mr. T. A. Collins [*F*], County Architect, Leicester, writes:

'Mr. Haughan was born at Silloth where his father was the surveyor to the Holme Cultram Urban District Council. He was educated at a private school at Silloth and at George Heriot's School, Edinburgh. Between 1912 and 1922 he was a pupil and assistant in the Cumberland County Architect's office.

'In the first world war he saw service in France with the Fifth Border Regiment and the Royal Flying Corps – later the Royal Air Force – attaining the rank of squadron leader.

'After the war he returned to Cumberland to complete his professional training and later held appointments as an architect under the Kent and Cheshire County Councils and in Northern Ireland, before returning to Cumberland in 1938, as County Architect. He also worked for a time in the office of Sir Arnold Thornely [*F*].

'His work in Cumberland covered all types of buildings required for a county authority in a district which comprises an industrial area and some of the finest and wildest terrain in the country. His designs always fitted suitably into their surroundings and his feeling for the traditional building of the county in no way conflicted with his command of contemporary building and design. His work was always fully detailed and woe betide anyone who tried to skimp the drawings.

[These works included Whitehaven College of Further Education; County Offices at Carlisle; houses for council staff at Scotby; police buildings at Wigton; housing for disabled people at Penrith; a clinic at Aspatria; students' quarters at a farm school at Newton Rigg; and schools at Seascale (a new primary school: with J. Freers); Workington (grammar school and Westfield primary, junior and infant schools); Alston (Samuel King's school); Brampton (Irthing Valley school: with Frank Waddington [*F*]); Cleator Moor (Ehenside county secondary school); Maryport (Netherall school for boys); Penrith (Tynefield school); Whitehaven (Kells secondary modern school); Wigton and Keswick.]

'John Haughan had a most attractive personality and his electrifying presence would transform any otherwise dull gathering. It was refreshing to meet a senior public official so well versed in the vernacular and humour of the county he served, and his love for his native county found expression in his fund of the legends and anecdotes of the Border country.

'His humanity was well known to his friends and was of that order which does not advertise itself and his many kindnesses passed for the most part unnoticed.

'Among his official architectural colleagues John Haughan will probably be remembered most for the pioneering work he did in connection with the founding of the County Architects' Society in 1942, of which he was President from 1942–6. His memorandum on the early history of the Society, which he had just completed, has been presented posthumously to the Society.

'He was one of the four architects originally appointed by the County Councils' Association in 1943 as their technical advisers and served in that capacity until his death. A member of Council and Past Chairman of the Cumberland branch of the NAA, he had always worked for the unification of the profession and the status of the architect.'

Harry Hubbard [*A*]
died on 7 December 1959, aged 71.

Mr. Hubbard was educated at Glasgow High School and at Glasgow School of Architecture; after apprenticeship with Frank Southron of Glasgow he went as assistant to John Burnet [*F*], Son and Dick. Early in the 1914–18 war when in France on active service with the Glasgow Highlanders he went down with very serious leg-poisoning; on discharge, after 16 months in hospital, he became assistant with Watson, Salmond and Gray [*FF*] of Glasgow.

In 1932, after some nine years as chief assistant to Sir Robert S. Lorimer, ARA [*F*] he entered into partnership with William Williamson [*F*] (as Williamson and Hubbard) in Kirkcaldy; since the death of Mr. Williamson in 1952 he had continued as sole partner. He was for a number of years on the architectural teaching staff of Edinburgh College of Art. He served on the Council of the Royal Incorporation of Architects in Scotland and on the Council of the Edinburgh Architectural Association.

The Williamson and Hubbard practice was, in the main, confined to the Kirkcaldy area of Fife; the principal buildings include: Forth Park Maternity Hospital, Kirkcaldy; Hunter Hospital, Kirkcaldy; Leven and District Trustee Savings Bank; Sinclairtown Trustee Savings Bank; Burntisland Trustee Savings Bank; Restoration of 'The Sailor's Walk', Kirkcaldy, for the National Trust for Scotland; multi-storey flats at Westfield for the City of Edinburgh; local authority housing in Fife and in Edinburgh; Kirkcaldy Ice Rink; extension to St John's Parish Church, Kirkcaldy; offices at Perth for the North of Scotland Hydro-Electric Board; Templehall Church, Kirkcaldy (this church in collaboration with Mr. George B. Deas [*F*]). Mr. Hubbard was a man of broad interests; particularly ornithology.

Bronek Katz, MBE
died on 26 February 1960, aged 47.

Mr. E. Maxwell Fry, CBE [*F*], writes:

'The sudden death while ski-ing in Austria of Bronek Katz takes away at a blow an old pupil and a friend, and for our profession a very good architect.

'He came to my office in the '30s, a rather awkward young man speaking little English and not drawing very well, so I thought. But I liked his face, and very soon I liked him altogether because his aptitude for design was evident in a few weeks.

'We worked very happily together in the days when Walter Gropius was still with us, and in the little time between then and the outbreak of war.

'After the war he joined with my old chief assistant, Reginald Vaughan [*F*], and set up as Katz and Vaughan, and to my delight as assessor won an open competition for the design of a prototype shop for Richard Shops Ltd. This brought them in work all over the country.

'They designed the charming Homes and Gardens Section at the Festival of Britain for which Katz was awarded the MBE, and went on to do work for the Bata Shoe Organisation in many parts of the world, of which I know some well-designed flats and houses in West Africa.

'As time went on Bronek Katz's work improved and deepened, as may be seen from the interior of a Richard Shop in Oxford Street, which is handled like a master, a true simplification of a complicated arrangement of forms that is as clear and lucid as a Mondrian.

'He always struck me as being the perfect European character – urbane, amusing, inquisitive but tolerant. There was also energy and leadership and a very warm heart.'

In addition to those mentioned by Mr. Fry, buildings designed by Bronek Katz and Reginald Vaughan included premises for Richard Shops in Regent Street, Kilburn, Bedford, Blackburn and Newcastle; Bata shoe shops in Oxford Street and Manchester; a showroom for Dellbury in Conduit Street; a Freeman, Hardy and Willis shop in London; Moulton's furniture store, Ilford; a shop for Tracy in New Bond Street; for Williams and Williams in High Holborn; True-Form shoe shops in Oxford Street, Old Bond Street and Victoria Street; a showroom for Thorn Electrical Industries in Shaftesbury Avenue; bungalows at Sutton; small houses at Putney;

houses for the Bridgend Paper Mills; the Washington Hotel and a National Bank of Scotland, both in Curzon Street.

Malcolm Waverley Matts, MVO [*L*] died on 18 February 1960, aged 86.

Mr. C. W. Eastick, FRICS [*L*], writes:

'Mr. Matts practised in London for over 50 years, and since 1913 at Staple House, 51–2 Chancery Lane, London, WC2, which he designed, together with other office buildings in London and the suburbs.

'In 1939–40 he was responsible for additions to The King's (now The Queen's) Chapel of the Savoy, for which he was made a Member of the Royal Victorian Order by His Late Majesty, King George VI.

'During the last war, he was the architect for Ashridge Hospital, Hertfordshire.

'Over many years he was architect to the Territorial Army and Air Force Association of the County of London, and designed and built many headquarters for them.

'Mr. Matts also served on the Practice Standing Committee.'

George Patrick Houston Watson, MBE *[Retd. F]* died on 27 December 1959, aged 72.

Mr. Charles Calder, who was a colleague of Mr. Watson, writes:

'He was principal architect on the staff of the Royal Commission on the Ancient Monuments of Scotland for about 40 years. On his retirement in 1952 his valued services were retained on his appointment as one of the Commissioners. Besides being competent in the field of archaeology, Mr. Watson had an outstanding knowledge of medieval architecture, gained by his own study and long experience, which was no doubt aided by and initially inherited from his father, Mr. John Watson [*F*], and his uncle, Mr. George Mackie Watson [*F*], both of whom were well-known architects interested in similar historical subjects. He applied himself with enthusiasm and devotion to his job and the Commission's Inventories of the Counties so far surveyed provide a permanent record of his work.

'Mr. Watson was commissioned in the Royal Engineers during the first world war, from which he emerged with a bullet wound in the knee that greatly hampered his activities, but in spite of this handicap he carried out his duties without complaint. As a colleague of many years' standing I found him a most sincere friend to whom I was often greatly indebted for his ready and willing help.

'He was a Fellow and one-time Honorary Secretary of the Society of Antiquaries of Scotland, to whose *Proceedings* he made several important contributions. Before retirement he was of a robust constitution but latterly he suffered from illness which further restricted his activities. However, he overcame his physical disabilities by preserving a cheerful and indomitable spirit to the last.

'All his life Mr. Watson was an ardent painter and in his leisure time pursued this hobby both at home and abroad. His paintings in water-colour achieved considerable distinction and he was elected a member of the Royal Scottish Society of Painters in Water Colours.

'Modest, kindly and gentlemanly always, Mr. Watson was much respected by those who knew him and he will be sadly missed by all his friends.'

Membership Lists

ELECTION: 5 APRIL 1960

The following candidates for membership were elected on 5 April 1960.

AS FELLOWS (11)

Barker: John Clifford, Dipl.Arch.(Leeds), AMTPI [*A* 1948], Aylesbury.
Baxter: James Russell, Dipl.Arch.(L'pool), Dip.TP(Edin.), AMTPI [*A* 1934], Kitimat, BC, Canada.
Bedford: Peter Francis, MA(Cantab.), Dip. Arch.(Sheffield) [*A* 1941].
Dixon: Frank Horace Cedric [*A* 1949], Windhoek, SW Africa.
Harvey: Kenneth Gordon, DSO, B.Arch. (Rand) [*A* 1952], Bulawayo, Southern Rhodesia.
King: Kenneth Standish, AADipl. [*A* 1946], Mombasa, Kenya.
Macdonald: Bruce, B.Arch.(Rand) [*A* 1954], Salisbury, Southern Rhodesia.

and the following Licentiates who are qualified under Section IV, Clause 4(*c*)(ii) of the Supplemental Charter of 1925:

Brayshaw: Frederick Norman.
Brown: Bernard Owen, Salisbury.
Swanston: Stuart Murray.
Willett: Cecil Harold Alva, Reading.

AS ASSOCIATES (70)

Alington: William Hildebrand, B.Arch.(Auck., NZ), M.Arch.(Illinois, USA), Levin, New Zealand.
Allen: John Geoffrey, DA(Edin.), Edinburgh.
Badham: John, Dip.Arch.(Sheffield).
Bennett: David Brian Cole, Dipl.Arch. (Northern Polytechnic), Radlett.
Bhuta: Bhupatrai Mohanlal, Dip.TP(Dunelm.), New Delhi, India.
Bishop: Patrick John, Dip.Arch.(The Polytechnic).
Blore: Alfred Stewart, Eltham, Victoria, Australia.
Blowers: Keith Edward, Dip.Arch.(The Polytechnic).
Boey: Hou Meng, B.Arch.(Melbourne), Singapore, Malaya.
Boyman: Derek Leslie, Dip.Arch.(Sheffield), Sheffield.
Burnaby: Geoffrey Valentine, BA(Cantab.), DA(Edin.), Aylesbury.
Chapman: Sydney Brookes, Dip.Arch.(Manchester), Prestbury.
Chatterjee: Arun Kumar, Nagpur, India.
Colston: Arthur Edward, BA(Arch.)(Manchester), Chapel-en-le-Frith.
Cox: John Morris, Nottingham.
Crosby: Frederick Ernest.
Curtis: David Arthur, Dip.Arch.(The Polytechnic), Virginia Water.
Davis: Robert Michael, Dip.Arch.(Dunelm.), Newcastle upon Tyne.
Finney: John Edgar, Dip.Arch.(Nottm.), Haverfordwest.
Garfield: (Miss) Olive Ruth, Dip.Arch.(The Polytechnic).
Garratt: Brian, Dip.Arch.(Birm.), Hamilton, Ontario, Canada.
Gibson: Neville Mercer, Dipl.Arch.(Canterbury), Maidstone.
Glass: Martin, Dip.Arch.(Wales), Swansea.
Glenister: Dennis Alan, Nairobi, Kenya.
Gray: James Alexander, DA(Edin.), Edinburgh.
Harrison: Alan Sidney, Dip.Arch.(Sheffield), Lichfield.
Harwood: Hugh Kemp, Dipl.Arch.(Kingston), Guildford.
Hedworth: David William, Dip.Arch.(The Polytechnic), Bridport.
Hodgson: Geoffrey, BA(Arch.)(Sheffield), Sheffield.
Holt: Richard Eric Joseph, Dip.Arch.(Leics.), Coventry.
Hoult: (Miss) Beatrice Sheila, Dip.Arch. (Dunelm.), Newcastle upon Tyne.
Jackson: Frank, Dipl.Arch.(UCL), Horsham.
Jobson: John, Dip.Arch.(Dunelm.), Newcastle upon Tyne.
Jones: James, Dip.Arch.(Sheffield), Stoke-on-Trent.
Juniper: David John, Dip.Arch.(The Polytechnic), Whyteleafe.
Kent: John Frank, Leeds.
Lamb: Shen Chuen, B.Arch.(Manitoba), Calgary, Alberta, Canada.
Leslie: William Gray, Dip.Arch.(Abdn.), Edinburgh.
Lever: Richard Jeremy Ashton.
McMurray: Gordon, Dip.Arch.(Manchester), Hemel Hempstead.
Martin: Robert Redvers, BA(Arch.)(Manchester), Preston.
Mitchell: Duncan, DA(Dundee), Kilmarnock.
Modak: Keshav Vaman, Bombay, India.
Moore: Paul Stanley, B.Arch.(NUI Dublin), Bridgetown, Barbados, British West Indies.
Patel: Khimji Lalji, Dip.Arch.(Manchester).
Paterson: Ronald Ogilvy, Auckland, New Zealand.
Pearson: Neville Alfred, Cwmbran.
Poad: John Sherwood, Dipl.Arch.(Hull), Hull.
Powell: Anthony Edgar, Dip.Arch.(Manchester), Crewe.
Reynolds: Gerald John Douglas, Winchester.
Robson: Metford John, Dipl.Arch.(Hull), Doncaster.
Rose: Ian, DA(Glas.), Glasgow.
Sanger: Douglas James, Dipl.Arch.(Kingston), Orpington.
Swanson: Swan Douglas, Dip.Arch.(Adelaide), St Georges, South Australia.
Symmons: Hugh Allen, Dip.Arch.(Sheffield), Manchester.
Thompson: George Matthew, B.Arch. (Dunelm.), Ponteland.
Thomson: Colin, DA(Edin.), North Berwick.
Tio: (Miss) Gladys Phaik Keow, Dipl.Arch. (UCL), Penang, Malaya.
Tomlinson: Alan James, Dip.Arch.(Nottm.), Tollerton.
Walker: Ian Morton, Dip.Arch.(Manchester), Cockermouth.
Ward: John Arthur, Dip.Arch.(Leics.), Stilton.
Webster: John Robin Cook, BA(Cantab.), Dipl.Arch.(UCL), Arundel.
Whiffin: Mervyn, Epping.
Wilczynski: Janus Antoni.
Williams: Peter John Frederick, Dip.Arch. (Wales), Newport, Mon.
Wilson: David Johnson, Dip.Arch.(Sheffield), Newtownabbey.
Winchester: Peter John, Dip.Arch.(The Polytechnic).
Woods: (Miss) Mary Elizabeth, Dip.Arch. (Birm.), Nuneaton.
Wyman: Laurence John, Dip.Arch.(Adelaide), Mount Gambier, South Australia.
Zubas: Peter Vytautas, Montreal, Que., Canada.

Members' Column

This column is reserved for notices of changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. D. L. Dyer [*A*] has resigned his appointment as Senior Architect to the Harlow Development Corporation and has accepted a post with **Messrs. Norman and Dawbarn** [*F*/*A*]. His address is c/o Libyan Architectural Group, 9th August Square, P.O. Box 234, Benghazi, Libya.

Mr. J. T. Hirst [*A*] has taken up employment in Ghana as an Executive Architect, c/o Public Works Department, P.O. Box 1914, Kumasi, Ghana.

PRACTICES AND PARTNERSHIPS

Messrs. David Beecher and **Alan B. Stamford** [*F*/*A*] have taken **Mr. Kenneth Austin** [*A*] into associate partnership. The firm will continue to practise under the style of **Beecher and Stamford** of 14 Park End Street, Oxford (Oxford 48896).

Messrs. T. P. Bennett and Son (Sir Thomas P. Bennett, KBE [*F*], Mr. P. H. P. Bennett [*F*], Mr. M. L. Winslade [*F*], Mr. W. B. Galloway [*A*], Mr. G. W. Bowes [*A*], Mr. Michael Metcalfe [*A*] and Mr. W. Howard Sant [*A*]) have taken

into partnership **Mr. Herbert H. Hayns** [*A*], and continue to practise as **T. P. Bennett and Son** at 43 Bloomsbury Square, London, WC1 (Holborn 9277).

The business address of **Mr. Derek S. Bottomley** [*A*] is Circle House, 29 Lady Lane, Leeds 2, Yorkshire (Leeds 23262), where he practises with **Mr. Anthony le M. Pearce** [*A*] under the style of **Pearce-Bottomley Architects.**

Mr. James H. Collyer [*A*] has commenced in practice at 15 Highfield Road, Edgbaston, Birmingham 15 (Edgbaston 5816–7).

Messrs. Diamond, Hodgkinson and Partners [*AA*] of London and Wolverhampton, and **Messrs. Redfern, Briggs and Partners** [*AA*] of Nottingham, announce that their practices have been combined under the style of **Diamond, Redfern and Partners. Mr. John Diamond** [*A*] and **Mr. Frank Briggs** [*A*] will practise from 92 George Street, London, W1 (Hunter 0489); **Mr. Roy Fellows** [*A*] from 26A Snow Hill, Wolverhampton (Wolverhampton 27621) and **Mr. Alan Redfern** [*A*] from 20 Clarendon Street, Nottingham (Nottingham 44848). **Mr. Peter Hodgkinson** [*A*] of 2537 Claire Court, Mountain View, California, USA, will continue as a partner in the new firm.

Mr. Douglas O. Feast [*A*] has taken **Mr. John K. Anderson** [*A*] into partnership under the style of **Feast and Anderson** at 52 Upper Berkeley Street, London, W1 (Paddington 4850).

Mr. T. I. Frith [*A*] has taken into partnership **Mr. G. C. Taylor** [*A*]. The firm will continue to practise at Newcastle Chambers, 45 Carlton Road, Worksop, Nottinghamshire (Worksop 3445–6), under the style of **Frith and Taylor.**

Mr. F. A. Hughes [*A*] is now in practice at 3 St Peter's Road, St Margarets-on-Thames, Twickenham, Middlesex (Popesgrove 1852).

Mr. Andrew Merrylees [*A*] has commenced practice at 74 George Street, Edinburgh 2, where he will be pleased to receive trade literature.

Messrs. Munce and Kennedy [*A*] of 133 University Street, Belfast, announce that **Mr. John F. Sheldon** [*A*] is now in charge of their London office at 34 Seymour Street, London, W1 (Paddington 4693).

Mr. Anthony le M. Pearce [*A*] has taken **Mr. Derek S. Bottomley** [*A*] into partnership under the style of **Pearce-Bottomley** at Circle House, 29 Lady Lane, Leeds 2 (Leeds 23262).

Mr. T. McEwan Porter [*A*] and **Mr. Peter L. H. Wakefield** [*A*] have taken into partnership **Mr. Peter Swann** [*A*] and **Mr. E. Victor Harris.** The name of the firm will remain **Imrie, Porter and Wakefield,** 35 Market Place, Warminster, Wiltshire (Warminster 2123 and 2051).

The practice of **Mr. Dennis E. Pugh** [*A*] will now be under the name of **Dennis E. Pugh and Associates** at Nicholas House, River Front, Enfield, Middlesex (Enfield 5272).

Messrs. Snailum and Le Fèvre [*FF*] have taken into partnership **Mr. R. G. Quick** [*A*]. The firm will continue to practise under the style of **Snailum and Le Fèvre** at 18 Brock Street, Bath (Bath 60458–9).

Messrs. Stephenson and Turner [*F/A*] of Australia and New Zealand, announce that **Mr. R. G. Freeman** [*A*] and **Mr. D. V. Dunn** [*A*] have been admitted as partners of the firm, and **Mr. Warwick L. Smith** [*A*] as an associate.

Mr. Desmond Thornhill [*A*] has commenced practice at 'Matlock Bank House', Wellington Street, Matlock, Derbyshire (Matlock 284), where he will be pleased to receive trade catalogues.

Mr. Ronald Thurston [*A*] has resigned from his appointment with Dunstable Corporation and has commenced practice on his own account at Montpelier Chambers, High Street South, Dunstable, Bedfordshire (Dunstable 1750).

The title of **Messrs. Vallance, Westwick and Associates** [*AA*] has been changed to **Myles-White and Associates.** The director is **Mr. F. Myles-White** [*A*] and **Mr. E. V. Knott** [*A*], **Mr. P. R. Needham** [*A*] and **Mr. D. Winter** [*A*] are associated architects. The practice will be carried on from the present addresses at Paradise House, Paradise Street, Sheffield 1 (Sheffield 20091) and White Hart Chambers, Mansfield, Notts (Mansfield 10/1908).

Messrs. Leslie G. Wood and Arthur L. Pigg [*AA*] have taken into partnership **Mr. Kenneth Hare** [*A*] and have changed their address from No.17A to 17 Northumberland Square, North Shields (North Shields 2863), where they will practise under the style of **Wood and Pigg.** They are also practising from Contract House, Ponteland, Northumberland (Ponteland 2695).

Mr. Andrew Young [*A*] and **Mr. Peter Duffield** [*A*] have entered into partnership under the title of **Duffield, Young Associates** at 13 Ogilvy Road, Clontarf, Sydney, New South Wales, Australia.

CHANGES OF ADDRESS

Mr. Geoffrey H. Broadbent [*A*] has changed his address to 179 Queens Road, Cheadle, Cheshire (Hulme Hall 2914).

Mr. R. Graham Bromiley [*A*] has changed his address to 38 Leominster Road, Wallasey, Cheshire (Wallasey 2807).

Mr. C. C. Carter [*A*] has changed his address to The Bank of London and Montreal Ltd., P.O. Box 1262, Nassau, Bahamas.

Mr. Paul W. J. Darrington [*A*] has changed his address to 7 Hillside Glen, Duppas Hill Road, Croydon, Surrey.

Mr. Graham Fairley [*A*] has changed his address to 4 Highfield Road, Edgbaston, Birmingham 15 (Edgbaston 0132) where he will be pleased to receive by post all kinds of trade literature for his new library.

Messrs. Alec F. French and Partners [*F/A/L*] of Halifax House, St Augustine's Parade, Bristol 1, have moved to new offices at Pearl Assurance House, Queen Square, Bristol 1 (Bristol 93011).

Mr. Donald Gazzard [*A*] has changed his address to 142 Elizabeth Street, Ashfield, New South Wales, Australia.

Mr. H. J. Lane-Davies [*A*] has changed his address to Hilton House, Bridgnorth, Shropshire.

Mr. Roff Marsh [*F*] has established a branch office at 49 North Hill, Colchester (Colchester 4661). This office will be under the supervision of **Mr. Michael H. Evans** [*A*], who will be pleased to receive trade catalogues.

Mr. Robert MacKinnon Molesworth [*A*] has changed his address to 7 Clifton Park Road, Caversham, Reading, Berkshire.

Mr. Herbert Morel [*A*] has moved his Kent office to Toys Hill, near Westerham, Kent (Ide Hill 387), where he will be pleased to receive trade literature.

Mr. H. Parsons [*A*] has changed his address to Box 234, Fort William, Ontario, Canada.

Messrs. Rose and Higginson [*A*] have changed their address to Bank Chambers, 2 Bridge Street, Leatherhead, Surrey (Leatherhead 4171).

Mr. J. D. Shearer [*A*] has changed his private address to 'Coppers', Queen's Drive, Oxshott, Surrey.

Mr. J. P. Tyrrell [*A*] has changed his address to 15 St Nicholas Church Street, Warwick.

Mr. Ken White [*A*] has opened his own office at 1726 Champa Street, Denver, Colorado. He is always happy to hear from anyone passing through this part of the United States.

Mr. L. A. Wright [*A*] [9771] has changed his address to 'Hillswood', Looseleigh Lane, Crownhill, Plymouth.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Associate (34), office trained, car owner, seeks partnership. Yorkshire area preferred. Some capital available. Box 123, c/o Secretary, RIBA.

Associate aged 41, Dipl.Arch.Liverpool, Bronze Medallist 1959, returning UK August 1960 wishes to contact architect in established practice with view to partnership. Capital available. Box 125, c/o Secretary, RIBA.

Associate (37), B.Arch., 11 years' experience home and abroad on a wide variety of work, seeks partnership or position leading shortly thereto, with established practice in south (excluding London), south-west, or in any coastal region. Some capital available. Box 126, c/o Secretary, RIBA.

Architectural partnership wanted in West Riding, Yorkshire, by experienced private architect. Capital available. Box 127, c/o Secretary, RIBA.

Associate (34) with varied experience seeks partnership with firm wishing to expand and requiring partner to take charge of office in new district. Own car and small capital available. Box 128, c/o Secretary, RIBA.

Young Associate terminating present associate partnership seeks similar position with partnership prospects London area. Experienced private practice London on all types work and used to controlling part practice. High personal standard all aspects. Some capital available but would prefer to use capabilities for advancement of a practice rather than buy an interest. Box 129, c/o Secretary, RIBA.

Modern and established small firm of Tees-side architects with excellent accommodation wish to contact larger modern firm with a view to amalgamation on a co-partnership or association basis in order to extend scope of work. Box 130, c/o Secretary, RIBA.

A member wishing to retire is desirous of selling his practice which is mainly in and around London, with small office in WC2. A residence used as sub-office in Berkshire can be taken over if desired. Box 131, c/o Secretary, RIBA.

Staff architect (45) seeks local partnership as part-time manager for architects with work in south or south-west. Specialist in contract handling. Some capital available. Box 132, c/o Secretary, RIBA.

Architect's practice, near Bristol, for sale. Capital required, approximately £2,000. Box 136, c/o Secretary, RIBA.

Architect, age 40, with considerable experience in most types of building, seeks partnership or position leading thereto, preferably in London. Box 138, c/o Secretary, RIBA.

MISCELLANEOUS

The late Mr. Alan Peter Watts. Mr. A. C. Watts, father of the late **Mr. Alan Peter Watts,** Dipl.Arch.(UCL) [*A*], whose tragic death occurred on 11 January 1958, wishes to point out that communications are still being addressed to his son at the former address of the family, and these have been causing distress to members of the family and to the present occupiers of the address. The late Mr. Watts's name appeared in the obituary list in the JOURNAL for July 1958, page 325.

Widow of Retired Licentiate has for sale 2 drawing tables, Dumpy Level and staff, steel tape, box of compasses, 2 T-squares, drawing instruments, 5-ft. rule and set of French curves. Box 133, c/o Secretary, RIBA.

London member has for disposal unbound issues of the ARCHITECTURAL REVIEW for 1951 complete, also ARCHITECTURAL DESIGN for 1956 and 1958 complete, and some issues of earlier years of each. Box 134, c/o Secretary, RIBA.

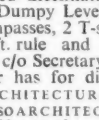
Member has for disposal copies of the ARCHITECTURAL REVIEW from January 1947 to March 1960. Box 135, c/o Secretary, RIBA.

Wanted: volumes 1, 2 and 3 of *General Building Repairs* by Geeson and *Specifications in Detail* by Macey. Box 137, c/o Secretary, RIBA.

Office accommodation required in West End area of London for periodic visits by provincial architect. Box 139, c/o Secretary, RIBA.

If any member has a copy of *The Age of Adam* by James L. Milne that he wishes to sell, will he please write to Mr. Cyril G. White [*F*], St Paul's Chambers, 19–23 Ludgate Hill, London, EC4.

The Royal Institute of British Architects, as a body, is not responsible for the statements made or opinions expressed in the JOURNAL.



HEALTH AND INCOME

Good health is part of the professional man's capital and disablement due to accident or sickness is soon reflected in his income. If he is unable to work for an extended period his income may cease altogether.

Insurance of course cannot prevent or ward off illness or accident, but a member of the 'Non-Cancellable' Group Scheme receives an income if he is unable to work – an income which continues so long as he is disabled – if necessary until the policy ceases at age 65. No matter what claims are made the benefits may not be restricted or the premium increased by the Insurance Company.

The Group Policy arranged with the leading Company in this field offers cover at lower rates of premium than for individual policies. The Scheme is open to Architects and their Assistants.

Please address inquiries to:

The Manager,
ABS Insurance Agency Ltd.,
66 Portland Place,
London, W1.
(Telephone: LANgham 5533)

The Profession in Contemporary Society

by W.A.Allen, B.ARCH. [*A*]

Given at the RIBA on 8 March, Mr. Basil Spence, President, in the Chair

Science, industry and the professions related

If we are to see clearly the position of professional life today, and acquire a reliable sense of direction about its future, we must first glance back to see how it has developed and why.

Focus, please, upon the two centuries between about 1500 and 1700 when the medieval way of life in the western world came to an end and science began to develop. It was the most significant occasion in history since the birth of Christianity, and perhaps will prove to be of comparable importance.

In saying this I am not thinking for the moment of test-tubes and measurement, but of science simply as knowledge. The classical world valued it, tried to add to it, and sought to spread it. In the medieval world the Church's preoccupation with faith became dominant; free inquiry and popular education were discouraged and knowledge itself was almost static and largely confined within theological straitjackets. Naturally enough reactions, strong and sometimes violent, eventually set in, and aided by the development of printing brought about the Reformation and the end of medievalism. In England it is particularly identified with the reigns of Henry VIII and his daughter Elizabeth, who through her masterly choice of advisers and her own liberal outlook did much to make the new intellectual climate the normal mode of English thought. Little more than half a century then sufficed to produce the galaxy of scientific minds which gathered themselves together to form the Royal Society.

Architecture, it is said, is the mirror of the ages, and here among architects it is proper to look for a moment at how architecture reflected these events. Both scale and character are faithfully recorded. This was an occasion of transcending significance and we find it to be the end-point of an epoch of architecture. Its development up to that time had been a continuous evolutionary process, but now this came to an end. Men cast their minds back to the classical age to rediscover the nature of intellectual freedom, and found they wanted to reproduce the environment in which it had thrived. Classical design was the natural inspiration and it served us for nearly two centuries until society, restlessly becoming aware that it was beginning to make an entirely new kind of life for itself, began its uncertain search for a new way of expressing it.

The keynote of the new era was a thirst for knowledge. What makes things fall? What held the universe together? What was light, air, water? There was quickly an awareness that answers to such questions could be ascertained as facts. The technique of experimental research was developed to serve this purpose and proved to be an exceptionally powerful way of using the mind. In the latter half of the 18th century the pulse of industry began to beat more quickly and at about the same time organisation began to develop on a new scale, reflecting the spread of education and a realisation that groups of people could achieve objectives not possible by individuals. Organisation included professions.

In the lifetime of events it is seldom possible to stand away and appreciate their significance, but it is easy enough now to see that these were formative steps in a pattern familiar to us, and perhaps at last approaching maturity. The outstanding features of the age are an immense stockpile of knowledge, and powerful methods for increasing it; but knowledge is only socially worth while if it is put to use, and two broad methods of application were required, one for its conversion into material goods, and the other for its social uses. The former is essentially mechanical and is the job of industry; the latter is intellectual and is the function of the professions.

Viewed in this way it is perhaps easier to see that science, industry and professionalism are interdependent activities, all related to the acquisition and use of knowledge. True, their origins were unrelated, and in their development they have displayed considerable animosity to one another. But the plain fact remains that there is not much point in having science which we don't use; and its use needs industry and the professions.

I think this point about animosity might have our attention briefly. Consider first the scientist. He has a great deal of knowledge in his own field, and by his standards those in industry and the professions who apply it can seem to be working to irresponsibly low levels. The professional in his turn has knowledge and experience from many fields to gather and balance for application and tends to see the scientist as working at an irresponsibly remote distance from reality. The industrialist in his turn shares the professional's view of the scientist but thinks the professional to be too unbusinesslike.

It is all damaging to society and we must replace it by mutual respect. Among the mature sciences little is done now without some thought to ultimate usefulness; professions depend upon research to help advance their standards, and industry needs it in numerous ways. Industry has to have the specialist knowledge of professions for its own functioning and professions need industry either for their tools or to carry out their work. My first point therefore is to urge that we should all give conscious recognition to the interdependence of our functions, and shape our work and organisations so that this fundamental three-part mechanism of society works at a high level of efficiency.

Some history

A few professions, notably medicine, architecture and law, have very long histories, but as organisations they were only rudimentary before the scientific age. Something like a modern approach is found for the first time among the early stirrings of the scientific age itself; we can envy, for example, the Royal College of Physicians its Charter of Henry VIII.

However, the real foundations of modern professional bodies were not laid until the late 18th and early 19th centuries when organisation began to spread. The Law Society, formed in 1729, was re-formed in 1825 and was granted a Royal Charter in 1845. The Apothecaries took up the reform of medical organisations generally and sponsored a Bill in Parliament in 1815. Mrs. Elizabeth Fry established her Institute of Nursing in 1840. The Civil Engineers first met in 1818 and received a Charter in 1828. Architecture clubs were formed from 1791 onwards and led eventually to organisation of the Institute in 1834, the year in which the Master Builders also got together. Our first Charter was granted in 1837. Our meeting-place, incidentally, was the (Fieldhouse) Tavern in St James's Street.

Partly this activity was the natural result of the forces I have just mentioned, and partly it was a response to the criticisms of a community newly educated, newly vocal, and with a rising set of values. It was distinguishing fraudulent or bad service from what it thought it should be getting, and there was engendered at the outset one of the fundamental characteristics of professionalism, that membership of the professions should be an assurance to the public of competence and honesty. Sir John Soane gives this early view of the professional architect, for example: he was 'to make designs and estimates, direct works, measure and value the parts', and act as intermediary agent between the client, 'whose honour and interests he is to study', and the mechanics, 'whose rights he is to defend'. The abiding note of duty and responsibility was thus sounded.

The second half of the century saw another round of developments. Existing organisations which had been expanding needed modernisation, and the enormous growth of engineering technologies led to a spate of new societies lasting into our own times. The Mechanicals, the Electricals, the Mining Engineers, the Sanitary Engineers, the Naval Architects, the Heating and Ventilating Engineers and several others of this ilk began life before the turn of the century, and so did the Chemists, the Surveyors, the Accountants, and the Actuaries. After 1900 came the Automobile Engineers in 1906, the Structurals in 1908, and the Aeronauticals in 1916. I have left out several, but these illustrate the development here between the first quarter of the 19th and the first quarter of the 20th century.

Sometimes the direction of development faltered and recovered, revealing interesting facets within the new structure. The science of chemistry had its origins among the chemical philosophers, makers of medicine, and alchemists. Early in the 19th century it began its profoundly important connexions with industry which created a necessity for industrial chemists and later there emerged the problems of inspection for the public safety. A professional outlook became essential. A scientific society had been formed in 1841 but proved insufficiently professional, and in 1879 a new Institute was incorporated by the Board of Trade. This case underlined the distinction between the acquisition and the specialised application of knowledge. Physicists have a somewhat similar arrangement today, and perhaps the growth of applied science will lead to its extension.

It raises an important question, however. The distinctions between pure and applied science have all but disappeared; atomic physics, for example, once a resplendent example of pure science, is now perhaps the most intensively applied. Is it wise then to encourage separate organisations for it? Has the fragmentation of engineering activity not gone too far? Were we sensible to let circumstances arise which made a separate body for town planning or quantity surveying necessary? I doubt it. We see now some tendency to amalgamate among professional organisations and I think it should be encouraged. Perhaps it will be part of the next stage of development, but if so, it is important that everyone should have a clear and unprejudiced picture of what society needs, and shape policies accordingly. Snobbishness and prejudice are still far too prevalent amongst us for the good of the country.

The nature of professions

What, exactly, distinguishes a profession and makes it what it is? We should look at this a little more exactly. Do we include the professional crook, the professional sportsman, the professional historian, and the professional painter? We hear talk now of advertising men and sales executives wanting to become 'professional'; and the same desire is stirring among builders and others in industry; what precisely is in their minds? Can you be truly professional when there is a strong commercial element in what you do, or when you do not offer impartial advice to the public? Is the Church a professional body? Is the Civil Service? Both are often described as such. My questions do not imply criticisms; they suggest that professionalism is a multi-part concept and that some piecemeal borrowing of the parts goes on when people want to imply that they have prepared themselves well for their job, and that their ethical behaviour is good. (That may not apply to the professional crook!)

There is no doubt that the essence of professionalism is the offering of a specialised and impartial intellectual service to the community, based upon knowledge and experience; to this all else is related, a prolonged formal education, the requirement for a training period in practice before the new entrant is let loose on his own, the organised reading and discussion of papers to keep abreast of new learning and experience, and the discipline by which the public is assured of competence and a sense of responsibility. So much is now well understood, but there are some implications which are less clearly seen. Consider the idea of service to the community and the sense of responsibility. A professional individual is responsible personally for giving good advice to his clients, but his profession as a whole has a parallel responsibility to give sound advice to the community on affairs which are within its sphere of interest and competence. Perhaps this seems too obvious to need emphasis, but it is an implication which is overlooked. A matter must be not only within a profession's own field, but it must be competent to have an opinion upon it, which means that it must have covered it in its training which requires a specific educational background in that profession.

Now let me illustrate the practical implication of this. We have witnessed some controversy in the past few years on bridges, street-lighting standards, and open-air heavy electrical installations, mainly concerning their appearance, but to some extent their cost. To justify public comment upon such matters a profession must have built into itself from its education a set of aesthetic and economic values, and the papers which an institute reads and discusses must reflect this. These are simply the logical requirements. I do not think that preparation has taken place among some of the professions concerned.

This in turn belongs in a still wider framework. Carr-Saunders and Wilson[1] in their book *The Professions*, published in 1933, speaking of professional education, emphasise that it must go beyond a narrow competence for practice to bring about an ability to relate the specific professional knowledge to the totality of affairs without which, they say, 'the directive force of reason is weakened' and 'the leading intellects lack balance'.

The fact is that professions are great and esteemed in accordance with the sense of responsibility which their members possess individually, but also collectively. If they are to fulfil their role as instruments for applying the world's learning and experience, they must design themselves and their activities not for ordinary competence but for the highest levels of strategic thinking and action. They cannot evade responsibility to the community and in consequence they cannot escape the eye of the State. It has for a long time been expressed in relation to medicine and the law and there are increasing hints in the direction of the engineering and architectural professions for reasons we will come to shortly.

Charters and registration are the expression of this mutual interest. Sometimes registration is imposed by the State to meet some public need, but more often it is the professions which seek one or the other in the public interest or as status symbols. It should not be forgotten that in granting a charter or registration the State not only gives a privilege but acquires a right to keep its eye on a profession's affairs.

It seldom intervenes until there is a compelling reason, and generally it expects that the professions will look after their own affairs properly. An illustration can be given. Carr-Saunders and Wilson remarked that the Medicals were guilty of self-seeking, that their etiquette was a nuisance or worse,

[1] *The Professions*, by A. M. Carr-Saunders and P. A. Wilson, Oxford University Press, 1933.

that they were conservative and unhelpful about social problems, and had abused a privileged position. Of the law they said that the public demands simplicity and intelligibility, but that its attitude to technique and reform in the public interest had put it in a low place among the professions. This was 30 years ago and most of the faults have been corrected, but the actions necessary have been taken both by the State and the professions.

What I have just said throws a light upon an aspect of professional life – the idea of service and efficiency – in which emphasis is shifting rapidly. Until recently it has generally been the idea that a professional gave his services to a client when he could afford to consult him. Today, he is increasingly expected to provide a service open in some suitable way to all who need it.

This is familiar to us in medicine and the law, but an especially neat illustration is provided by the work studies of dentistry by which the expected throughput per chairside-hour is fixed as a basis for payment. Such are the signs which point out one of the principal directions of professional development.

The profession of architecture

It is well known to be difficult to see ourselves as others see us; but we can at least consider how we see ourselves.

We have some exceptional difficulties which spring from the fact that we have to be at once artists, planners, technologists and men of business; at a time when our art must still be experimental, our planning has to face fresh problems daily, our technology seems to expand like the universe, and new standards of management are demanded everywhere. There are bound to be problems. It is occasionally said that we try to encompass too much, but to concede this would be to accept that the practice of architecture itself had become impracticable. We cannot do that, but what we must recognise is that our responsibilities call for the highest-quality entrants, that they must be given a training of quite exceptional calibre, that we must have arrangements for a high-grade type of discussion and information service, and that we must maintain an efficient, liberal and powerful Institute mechanism. Let us consider some of these points.

First, education.

It seems to me that the toughest problem we face here is in handling science and technology. This is the groundwork both of our art and our general competence, but more than this, it is the vital training-ground for the mind, the place to develop its capacity to think logically and incisively, to read widely and understand, to innovate and deal with innovation. These are essential qualities for leaders to possess, and leadership falls to our lot.

We have some tenacious obstacles to overcome. For one, we have been unable to free ourselves yet from the handicap of books and teaching based in engineering. This is not to decry engineering for engineers but engineering for architects. What we have had and still often get are watered-down courses intended merely to make us acquainted with such subjects as foundations, structures, light, heat, ventilation, sound, sanitation, equipment, etc.; it is said that there is no time for more, but more, if it were given, would at present probably lead only to more competence in computation, and this is not what we mainly require. A good building is a single organic embodiment of all its technical functions, its planning requirements and its aesthetic idea; it requires policy-level thinking about each aspect in order to get it organised properly from the outset. We require therefore neither a mere acquaintance with these technologies nor yet a full-blown computational familiarity, but the basis for sound policy decisions about design, and this often involves not engineering alone but economic, industrial, and human parameters. On the computational side all that seems essential is a sufficient ability to carry out the engineering design necessary for small jobs on which consultation is impracticable. On the larger jobs the approach I describe ought to improve our work with consultants.

I think I must try to illustrate the idea. Below ground a building needs different kinds of substructures according to the foundation conditions, but there must be also an organic relationship between the structure above ground and the type of support it should have. Before an architect can begin to think confidently about his design he must understand the mechanics of these matters and know the order of the dimensions likely to be required, the limits within which he would have to work, and how various factors are likely to affect costs or 'buildability'. A descriptive rather than a computational approach is required and can encompass then even very advanced ideas. An excellent example of the relationships I have in mind is provided by the flexible construction developed by the Nottinghamshire County Architect's department for buildings on subsiding ground.

Let me underline the importance of these matters in one other way. At our Oxford Conference on Education two years ago F. M. Lea, the Director of Building Research, was asked if he would say what he understood by a theory of architecture and he said, 'in its simplest terms the theory of a subject is the body of principles that interrelate and explain facts and phenomena and which within limits give powers of prediction'. This of course suggests something rather different from what is often called theory of architecture, which he thought was really philosophy. If you accept his definition as applying to architecture – and I think everyone at the Conference did – then the importance of strengthening this part of our education becomes self-evident, for this is the intellectual core of our subject, and in it we can expect to find the sharp edge of mental discipline we require if we are to produce strong and well-prepared people.

One or two courageous but insufficient moves have been made. Our Text-books Committee has for 15 years strained at the production of suitable books for these and other such needs, and special courses of advanced training for teachers have recently been organised. One or two of the subjects, especially structures, have already had imaginative treatment in some schools. Nevertheless something radical in type and degree is now needed in the way of improvement. Our Board of Architectural Education, which was criticised by Carr-Saunders and Wilson 30 years ago as a body ill-designed for action, has just itself been re-formed as a consequence of the Oxford Conference. In its new shape it should be able to act effectively and I hope it will not long delay vigorous attention to this field.

A second educational matter is this. We have brought about since the war a new attitude among architects to the management of building costs. 'Value for money' has been the subject of a long procession of conferences, symposia, and discussion meetings. Largely it has grown out of our successful attack upon the costs of schools by which, according to the Minister, the country has been saved more than £200 million. A determined and sustained effort is being made to formulate ways of reaching balanced and factual decisions about cost from the earliest stages of a design. The idea is being introduced now into Schools of Architecture, but I would like to urge that at the same time cost management should be set in the right framework for a profession in our position. They must be linked to national economic planning and money policies, and include the methods of financing buildings as well as their true costs in use. Our concern must be not only for individual buildings but for the nation's building.

This leads naturally towards a third educational concern, which is the attitude we cultivate to professionalism. Now I am not going to criticise our behaviour as individuals for I think it is quite good, but we do not have a strong *collective* sense of professionalism. Nothing quite like the *esprit de corps* to which the doctor is brought up, for instance.

I believe this to be mainly because we have not yet brought into sharp focus a sense of social purpose; we have not identified a specific major responsibility to society which

society itself sees and shares. We know what we as individuals expect of our doctors and the State knows what it expects of the medical profession. We see and believe in the value of what we ourselves do, both for the economy of the country and for the human spirit; and there is encouraging awareness of it in the community, but not yet a specific feeling of indispensability. For evidence there are still two or three major departments of central government with large building programmes but no effective architectural control of them, and 36 county boroughs still face the continuing process of their growth and renewal without the guidance of hands and minds trained for the design of environment. We believe this to be wrong and irresponsible, for the sums concerned, both of money and human happiness, are very large. In the county boroughs the issue at stake is nothing less than their future character and efficiency as cities. It is true that in matters of this kind there has been a great improvement since the war, but it is obvious that the country as a whole has not yet crossed the borderline from 'desirability' to 'indispensability' in their view of our services.

I think this is only a matter of time, however, for it is not long since we ourselves crossed over the borderline from the old idea of waiting to be consulted to the modern concept of a service to the community and we have done it almost without realising it. The success of the schools programme led the way towards the new attitude but never proclaimed it as an objective.

It spread to local authority programmes generally and they too have been successful. Now we have in fact arrived at an entirely novel position in society which neither we nor it have specifically appreciated, for it appears that as a profession we have become the channel for the largest single sector of the community's capital investment, with the general responsibility for an expenditure of somewhere between £700 and £800 million annually. Realisation of what this means in terms of responsibility to the community will I hope give us the focus I believe we need for a stronger collective sense of professionalism, and give a specific scale and purpose to our work in the eyes of the public.

History has set our new course and our responsibilities will doubtless extend accordingly. They will demand from us the highest standards of education and performance that we can attain and the community is entitled to corresponding interest in what we do and the way we do it. I believe we should keep before us constantly now, both in practice and in the schools, the idea that our main concern is the wise investment of the country's resources, looking to high dividends both in economic and human terms, for it is now our decisions that mainly determine the value the community gets for its money.

I have offered these three comments about our education, but in our concern for improvements let us not under-value matters which we have pioneered and developed to strength as studies; town planning and the design of environment, especially in the sense of its effect upon the human spirit; and planning as a general skill. These are valuable achievements to have consolidated, and the latter remains unique in the world of education.

Stephen Leacock once observed that a PH.D degree marked the last occasion on which a person could be examined. He was then pronounced full, said Leacock, and no further information could be imparted to him.

Something like this attitude was to be found amongst us as we entered the profession before the war, and it stirred our conscience uneasily. In 1938 E. J. Carter read us a paper about being a learned society,[1] full of charm and wisdom, and alight with enviable metaphor. Its purpose, like the present paper's, was to say, 'This is a moment to contemplate our future'.

The war broke in upon our thoughts, and attitudes have changed greatly since its conclusion. Active interests have developed in all sorts of matters that affect us and the air is alive with the sound of debate. It is healthy in its variety and intensity, but it has a curiously informal pattern.

Before the war we tended to follow a tradition of learned discussion, with a series of respectable papers on high-minded themes. Their chief distinction was their civilised character, and their chief fault that they passed over many of the problems of the day. In recent years we have developed what I would call a functional approach, identifying matters of all kinds that need discussion and designing each time the type of meeting that seems best for the purpose.

Other professions do things differently. Take, for example our friends the Electrical and Civil Engineers. Both lean heavily on their performance as learned societies, and a large proportion of their institutional energy and budgets goes into the reading and discussion of papers, which are almost exclusively technical. In a separate journal the Electricals publish some papers of general interest, including reprints from other sources. Professional topics are seldom treated and then on a rather *ad hoc* basis. An Association of Consulting Engineers, a rather close-knit body, exists to deal with some professional matters, but publishes no journal. Matters such as design, in the sense in which we use that term, or the needs of man in a cultural or philosophic sense, which to us seem necessary to give purpose and direction to technology, do not normally receive attention.

Now wherein does the right course lie for us? I believe we can best seek this by going back to the purposes which publication and mature discussion are supposed to serve.

Remember to begin with, that a profession is for the application of specialised knowledge; then perhaps these four requirements can be identified:

the consideration of new-acquired knowledge;

the gathering together of the results of practical experience;

the discussion of the social, economic and industrial context of our work and the study of matters affecting professional life and efficiency.

In four words, science, experience, purpose and efficiency. All are part and parcel of the professional life, and considered by these criteria, I do not think either ours or any other professional society's pattern of publication and discussion looks very satisfactory. Ours I think is now more balanced and sensitive than any I know and these are real merits; but it fails seriously to gather in experience or to advance learning and is altogether too thin as a whole. The more usual pattern which concentrates on the technology has clear merit in those last respects, and by conventional standards is generally judged more 'learned'. But architects would agree, I think, in feeling that it lacks the balance which they hold to be essential for a sound and responsible attitude to the community's needs.

A point to which we must seriously direct our attention is the advancement of learning. We make advances in practice; a great deal of original work is done by the profession, but we singularly fail to get it recorded. In the absence of a separate learned society we cannot limit ourselves to interpretation and application.

If a member of the public picks up our JOURNAL, what will he find as evidence that we have made original contributions to his and the world's advancement? I know we have difficulties resulting from our wide horizons. The problem is to recognise where specifically architectural advances are made and to get them on record.

One step to deal with this has been taken by the Council's decision to initiate a new kind of information service: this should help but it does not dispose of the main issue. The point is that our real advances as architects are made in the design of the individual projects, and – this is rather odd when you think of it – we scarcely ever discuss them. In contrast, the literature of engineers is largely devoted to individual jobs. I think this is significant and I will return to it shortly. At the same time I do not want to suggest that we do anything

[1] Carter, E. J., 'The Case for a Learned Society', RIBA JOURNAL, 1938, Vol. 45, p. 217.

merely because it is done by others or seems better to justify the title 'learned', because I think it would pay us and most of the other professions to do some fresh thinking about the whole of this problem, from the point of view of service and efficiency.

A profession requires a headquarters mechanism. As its name implies, it does jobs that our own heads do for us. It speaks, it listens, it thinks, it takes action.

Professional mechanisms take one or the other of two forms; either they combine the professional and learned functions or they separate them. Ours is of the combined type, with a leaning towards professionalism, for we have departments dealing with education, practice, technical matters, public relations, publications, and professional research; and there is an unusually good library. The best example of the other type is in the medical world where we have several Royal Colleges as the learned societies and the British Medical Association as the professional organisation. This is probably the most powerful arrangement if one is prepared to pay for it, but I think it is a pity to make more than a formal separation, for co-operation to give service is essential and probably happens best under one roof. Many professions seem to be uncertain about their mechanisms, and I think this reflects uncertainty about their professional life.

Our Council has made a number of major reforms in the past few years and others are under discussion. This is not the place to discuss them in detail, but two or three of them are new in principle, and for this reason I will bring them into this discussion.

Our unit for professional research is the most recent of our departments and it has few equivalents. Its job is to study our vital statistics, our own professional efficiency, the economic data relevant to our work and policies, and so on. It now provides quarterly information to the government about new commissions coming to private architects, providing thus some indication of the work-load likely to fall upon the industry, a type of service which seems a good example of what a government is entitled to expect from a well-run profession, and which has earned us some thanks.

But this is the fringe of the potential work of the unit. In spite of the large amount of work now processed annually, the incomes of architects are well below what they should be if rewards are to be consonant with the skill, responsibility and diligence now commonly exercised. Design may be too cheap; certainly, as all good professionals do, we expend much effort to reduce costs to the client, which in turn reduces our own rewards. This paradox is part of a tradition, though its quaint appeal is losing its grip. Architectural design is a type of activity in which costs are perhaps particularly difficult to control, for there is infinite opportunity and desire for refinement of detail. Stopping points are not so obvious as in some professions, and this may be a serious matter for us. At the same time, our own efficiency seems to vary greatly from office to office, and costs vary from one building type to another. Almost certainly there are better prospects of improved rewards from higher internal efficiency than in raising fees; but whether this is so or not, the whole matter can clearly benefit from the establishment of facts in place of the largesse of opinion on which we have to depend at present.

Linked to this is a matter much discussed at the moment, which some call the idea of a two-tier profession. A third of our office manpower is not architecturally qualified; that is, we employ one unqualified person for every two qualified. In some offices the so-called unqualified staff (actually often with other qualifications) outnumber the qualified, but in other offices the reverse is true and sometimes there are none at all. Many are employed as assistants, but some rank equal to or above qualified men. Some of our best designers argue that everybody in the office ought to be qualified, and others equally good say this is an impracticable way to try to run things today. This is not the place to debate the pros and cons, but there are three general observations worth making.

First, there is no point in supposing that we can get on without these people; we would not have enough manpower, even if offices were willing to try; and they aren't.

Second, they appear to include many who are striving for an architectural qualification because it is the only status of value within reach even though not well suited to their abilities. This raises the question whether there is not some better training and status which could be devised for these people.

This leads, third, to the idea that this type of staff might be specifically trained to carry part of the technical burden of the modern office, both at junior and senior levels.

In spite of remarks in the press, I do not see anything alarming or inappropriate in considering such matters; and there is a matter of principle involved, for I believe a profession has an obligation to see to the professional welfare of those who depend upon it for their employment. We work in an age of organisation, and such people must have a specific place in the pattern.

'Responsibility' comes into this discussion continuously. We have observed that ours is now a social art and that our services must in some way be put within reach of all who need them. The obvious problem is the person who is not eligible for subsidised accommodation and can only spend a very limited amount on a house for himself. We had much debate some years ago about proposals to make standard plans available, and a service is now operating with the help of a commercial organisation. But this is more likely to be the beginning of the problem than the end for scouts, youth clubs and some speculative builders litter the countryside with regrettable buildings. To my personal regret the debate did not take place on the question of duty but on expediency; but duty is the issue. We could be of considerable help to building societies, bringing more sense of responsibility to the investment of the country's resources.

A different kind of problem is whether architects should be allowed to take directorships in the building industry. We have a prohibition on this, formulated by Soane in the early 1800's as part of his purification process. I think we ought to be clear that the valuable part of the principle lies only in preventing a person from offering services which may not be impartial; if he offers no services at all to the public, no harm is risked. I think we are alone among the professions in maintaining a prohibition of this kind, for I think others permit the taking of directorships if a person does not mix this with practice – that is to say, practice as a consultant. Civil engineering firms are often run by civil engineers, and I think it very likely that the work is done better because of it, and that their Institute benefits from the industrial experience and the influence open to it. It seems to me no real issue at all, and that we ought to dispose of it at once.

An entirely new interest for the profession and the Institute is our relationship with the makers of building products. Materials represent two-thirds of the cost of buildings; they are often badly designed, the industries themselves are sometimes badly organised to meet our needs, and the information they supply is often inadequate and poorly presented. All this puts a great drag upon the work of design offices, searching for good design at the right price, and trying to get the information necessary for a sound decision.

Some individual members of the profession have made outstanding achievements in collaboration with producers since the war, and during the past five years the Institute has supported this with activity on a wide front. Almost always it is found that the industries themselves welcome the collaboration.

I mention this matter now not because of any new steps needed, but in order to identify a new and widespread activity in which architects are setting out to define to industry their requirements in respect of design and price, and to bring producers into the general picture of architecture to sense our common purpose. I think we should all as individuals make it our responsibility to act in this sense every time an opportunity presents itself, and collectively I think we should note

carefully how big a proportion of costs is represented by materials and consider whether there is not some way to effect reductions. There is the point about individual initiative, accepting whether we ought to try to spread and cultivate individual initiative within the policy of an Institute.

I remarked earlier on the curiosity that we seldom discuss individual designs, and we do not have any part of our committee structure devoted to building types although these are central interests. It seems that this is due more to not finding the right mechanism than to a lack of desire, and I have often wondered whether something more successful could not be found. I think perhaps we have the germ of it now, for lately architects employed in industry have got together as a Group to discuss matters of common interest, and what I would like to suggest is that we should form several such groups dealing with different building types. I would then give them two principal functions: first, to organise the discussion of individual projects (which would help to clear up a problem I mentioned earlier); and second, to encourage and advise upon research concerning these building types. I think this could be a very important part of our mechanism, and perhaps a vital one. Do not forget that professions colonise as part and parcel of the country's colonial development. Members of the Institute practise in 38 countries of the Commonwealth. As the countries move towards independence, one after the other, so do their professional bodies. We believe the time has come when there may be development and movement for practice and shared responsibility in the less advanced areas.

My final word about the Institute is a reminder that without it there would be architects but no profession, jungle-life instead of unity. There is often a temptation to measure its value in terms of what we get back from it as individuals, but this is the wrong yardstick to apply. Of course part of its job is to give us certain kinds of service, but its vital functions are external – to present our collective arguments, to organise, to negotiate, to lead, to reach vital people at vital moments. It is therefore in all our interests to see that the Institute is strong in every necessary way; but none of us will be able to see that he has a specific personal return on this investment.

And a footnote: the Committees of the Institute are the sources of its immediate authority and direction, and weakness at this point softens the whole structure. As Carr-Saunders and Wilson point out, the leading personalities of a profession must be prepared to give time to this work if the Institute itself is to be powerful and quick in action.

The building professions

While the design of a building in general is the responsibility of architects, the process frequently spreads through several professions dealing separately with structural design, heating, ventilation and air-conditioning, lighting and electrical services, mechanical equipment and sanitary facilities. Associated with all these are the quantity surveyors, and in a related but somewhat special position stand the Landscape Architects and the Town Planning Institute. Not all of the bodies concerned deal solely with building, but it is at least a major interest for each, and together we form a sort of super-profession for the industry.

This is a fact which neither we nor anyone else yet appreciates very fully. All the professions have come to our present levels of organisation independently. Our members have increasingly been thrown together by the developing needs of building, but as organisations we have not yet begun seriously to look at our operation together. When one considers the fact that between us we are responsible for the use made of more than £2,200 million value per annum of materials and labour, and that it is the largest area of the national capital investment, the fact that we do not collaborate closely is not only somewhat startling, but makes us vulnerable to the charge of treating the public interest lightly. The defence is that up to some moment in history it is too soon for the necessity of this kind of approach to be apparent, and among the building professions the moment has arrived only very recently; but once there is awareness, it must be acted upon or the charge becomes impossible to defend.

It seems right that we should raise these matters here at the RIBA. Much has been heard of 'the building team' in the past few years – usually thought of as a combination of architect, builder, and quantity surveyor – and we have been pressed time and again to exercise our leadership more positively. What is implied by my argument here is that the building team includes the whole of the building professions. As such they are entitled to know in clear terms the needs, objectives and views of ourselves and the other participants, and to voice directly to us their own problems and desires. Some single group must see to the smooth collaboration of the whole array of interests, professional and industrial, and the main duty is clearly ours.

One group of problems relates to methods of working, for there are awkward consequences in our different views about fees, in what we undertake to do for them, and in our methods of organising our work. The overall result is to delay the preparation of schemes and make all our work more difficult and expensive than it should be. We ought to get at these matters in concert.

A question of more speculative interest is this: are the engineering professions not too fragmented? From our point of view much of their work in buildings might be classed together as equipment engineering, and that is the way part of the engineering consulting practice is going. Does this have no germ of general significance? Would not some simplification of arrangements be to the general advantage? No doubt it is too early to make specific suggestions, but we should all keep sympathetically alert to possibilities in this direction.

Less speculative but perhaps more intractable is a worry that we architects have about training in design. No factor at present so deeply disturbs sympathy and collaboration between us as our differences of outlook and values in respect of humane and aesthetic considerations. These are matters which we believe to be of fundamental importance in the application of knowledge to men's needs, and to our disappointment they have little or no place in the education of engineers yet. We believe this cannot be right and we plead for a change of approach to these matters.

There are two other aspects of working together that can cause difficulty but ought not to. We must be able to work and speak together on matters of common public interest, and we must not cut across each other's proper individual interests. We have had to deal with examples of both lately and while we have had good or reasonable response in some quarters, it has been much less satisfactory in others.

For our attitudes to these matters we can all find the necessary guidance in what has already been said about the nature of professions. We spoke of the necessity for the training to throw up leading personalities with broad interests and balanced outlooks so that matters of public interest could be well considered. We noted also that a profession derives its authority for comment and action only from its specialised training and discussion; the converse of this is equally true and more specifically relevant, for it follows that a profession should not attempt to speak or act in fields for which its training has not prepared it. Such principles must be respected if the public interest is to be served, and mutual respect maintained among the professional people of all types.

I have only one more word to add. Between on the one hand the building professions and on the other the inspectorates who operate building bye-laws, water bye-laws, etc. relations are not on a suitable basis. Regulations of one kind or another are made by the state to protect the public from malpractices. Charters and registration are granted to professions by the state as recognition that they have taken approved steps to protect the public from malpractices. The inspectorates have behind them specific powers which give them positions of tactical strength. Unfortunately the view

has become widespread that often they do not exercise this properly. There are well-documented criticisms of conservatism, of excessively 'play-safe' attitudes, of arbitrary decisions for which evidence is lacking, and of a generally inconsiderate attitude towards professional people whom they have no right to hold in anything but good regard, and who have often apparently taken more care to keep abreast of modern advances than the inspectorate. Whatever the position was at some time of history in the 19th century when the present organisation was set on its feet, the reality today is that the qualified professional does not need the help of bye-laws to give proper service to the public, and his view is consequently moving towards the idea that his work should usually receive approval more or less as a matter of form, and that the appropriate attitude for the inspectorate should be one of helping with information on interpretation, local conditions, etc.

Nobody questions the necessity for bye-laws, but the way they are used today is often adding needlessly to the time and cost of design and construction, and this is not in the public interest. Both sides of the table should be concerned for improvement.

I would not like to end on a note of discord. Let me therefore recall briefly two or three positive points that I hope will serve us in the future.

On the broadest front there was my suggestion that science, industry and the professions should see themselves as interdependent activities and work more obviously in that sense.

I tried then to identify the nature of professions more exactly, and noted especially the change now occurring from the concept of consultation to the idea of a service to the community.

As regards architecture itself, the point that I think most important is the need to gear ourselves to a new level of responsibility, measured against the realisation of the large volume of the country's resources we now have to handle. This affects us in ourselves and our Institute.

And finally I have suggested that the responsibility of leadership that devolves upon us calls for initiative on our part in seeing that the building professions as a group function together in a mutually satisfactory way.

Behind all this lies my belief that we as a profession, and professions generally, and professions, science and industry together have entered a new period in the development of the scientific age in which the chief characteristic will be organisation for collective action on behalf of the community.

VOTE OF THANKS

Sir Noel Hall, Principal of the Administrative Staff College, Henley-on-Thames, moved a vote of thanks.

Sir Noel said that the warmth of the applause at the conclusion of a courageous and fascinating paper absolved him from a large part of the responsibility which he had the honour to discharge.

Sir Noel said he was gratified at having the opportunity of speaking on the occasion when Mr. Allen had addressed the assembly because he had many times had very substantial advantages from his architect advisers, making use of the service of the Research Station in which Mr. Allen worked.

Having listened to the paper, knowing very little of the distinguished profession, he found, if he closed his eyes, he might have been listening to many similar discussions in many similar walks of life where increasingly the problem of finding the most effective way of applying advances in knowledge to affairs was under consideration and being shaped to meet changing conditions.

He had seldom heard the difficulties involved so frankly, candidly and vigorously expressed. Sir Noel had been particularly interested to hear the importance Mr. Allen attached to the basic education on which the profession rested. He had heard some references to the detailed work done among the young cadet in computation. He believed that here, as in many other parts of the country, there was increasing concern about so much time being spent, at the educational stage, in going through exercises involving figuring; but the true nature of and understanding of figures was not, in this country, receiving the attention it deserved. Sir Noel had found this in many walks of industry – the accountancy profession and many others.

He hoped that the architectural profession would weigh in in giving its own impact to those who were responsible for education in this important field. It was Geoffrey Crowther who had coined a word about turning out a 'remunerative' generation.

There was one point in particular Sir Noel wished to emphasise when discussing professions. Traditionally, they had been independent advisers; increasingly, they were employed. He had read in the paper that a great many of the employed architects were getting together to solve their common problems. Increasingly, the maintenance of professional standards under those conditions was among the besetting problems of everyone. He thought, in particular, that Mr. Allen had been right when he said that an important part in that process was that the profession as a whole should so express its views and the results of its own study that the community was forced to listen. An individual worked in an environment in which thinking people had been guided by the authority of carefully prepared and thought-out study, which the profession as a whole made available to it.

It would probably be necessary to go further into the affairs of this profession. As one who stood outside, Sir Noel had listened with interest to the emphasis the speaker had placed on that.

Sir Noel said he had great pleasure in moving a vote of thanks.

Mr. Richard H. Sheppard [*Hon. Secretary*] said it gave him great pleasure to second the vote of thanks to Mr. Allen for his memorable paper. The paper had been characterised by great courage. The President had stuck his neck out at the beginning of his last year of office by asking for a very much greater degree of co-operation between the various professions, and now Mr. Allen had gone into the charge with a logic which arose from his analysis of the relation between science, industry and the professions, to give an edge to the suggestion made by the President.

Mr. Allen would be sorry he had said it, but he could be absolutely sure that everyone was behind him in it, because it needed to be said and needed to be thought over.

The paper was a very fine one, coming as it did so soon after the Royal Commission's Report on the remuneration of the professions. As everyone knew, architects had come out worst, but on the other hand surveyors and engineers were not very much ahead – about 91 quid per annum on the median!

What Mr. Allen had said in relation to professions struck very close, because it gave the profession a policy. As he had said, it stemmed back to standards in the schools, to their own standards of education, and to their technical competence.

Mr. Allen was very wise to stress that because of the change that had come about, particularly in the last 40 to 50 years, architects were responsible to the community in a way they had not been 100 years ago; because a large percentage of the amount spent on building came from the community as a whole. It therefore became absolutely essential that methods of cost control and cost analysis were taught and were made important in schools of architecture. From the contacts he had, Mr. Sheppard thought there was a great deal of irresponsibility on the part of the architectural students and architects in that field. They did not realise these facts.

Seconding the vote of thanks, Mr. Sheppard said he was always looking for somebody to tell him what to think, and this was awfully difficult because the sources got fewer and

fewer, and now that Sir Alexander Carr-Saunders had stopped writing (or Mr. Sheppard had not read what he had written lately) he would have to look in future to Mr. Allen for work on the professions. He had been on the Council for six years and always waited to see what Mr. Allen thought before he himself thought it. Now Mr. Allen was telling him how to think, as well as what to think, so he was more grateful to him than ever.

Mr. Allen had put in an enormous amount of time in the Institute, and Mr. Sheppard recommended everyone to read the paper twice; it was very well written, it was unpretentious, it was sincere, it was straightforward, it had no jargon; and it was courageous and very like the person who wrote it.

DISCUSSION

Mr. G. H. Buckle, MIHVE, said that as a services consultant, he had much appreciated Mr. Allen's paper but was a little apprehensive because the words 'stimulant' and 'stimulating' had been used, as applied to Mr. Allen's fellow architects, presumably. Mr. Buckle was not at all sure that they needed further stimulus. On most of the jobs which he was concerned with, they formed part of a team, of the architect, the quantity surveyor and the various consultants, and the ideas came in great profusion from the architect. Engineers, although they might be reasonably clever at doing things, were very slow at putting forward things or thinking out anything new. In fact, British engineers could carry out air-conditioning in about the year 1900, but it just stayed there and was not continued with.

Mr. Buckle thought that the present team worked very well, and asked Mr. Allen if he thought that arrangement ought to be altered or bettered.

Mr. P. E. A. Johnson-Marshall, AMTPI [*A*] thought that Mr. Allen in his extremely valuable paper had rather skated round the delicate problem of architecture in relation to professions which were what might be called on the fringe of architecture. Sooner or later this problem had to be tackled very seriously inside the Institute.

Mr. Allen, in his opening historical comments, had begun with the age of enlightenment: Mr. Johnson-Marshall thought he might have gone back a little earlier to the guilds which, though pre-scientific, were a fairly advanced form of professional welfare organisation. The guilds might still have one or two things to teach. Also, one might perhaps think of the French Academy of the 17th century, which had for the first time united architecture with science; and what today was called engineering was then earlier called 'military architecture', just as today boat-building was called 'naval architecture'.

He wanted to make one small point: Mr. Allen had started what Mr. Johnson-Marshall felt to be a most important thing on the problem of professions, and that was the idea of an inter-professional council: could this be thought of as developing so that instead of perhaps arousing emotions, which nearly always defeated clarity, there could be more and more sitting together with fellow-professions on what might be called the problem of environmental design. One day, said Mr. Johnson-Marshall, he would like to see the Institute representing the whole problem and he hoped that Mr. Allen's paper would be a step forward in that direction.

Mr. E. Maxwell Fry, CBE [*F*], said he wanted to follow on immediately from the remarks made by Mr. Johnson-Marshall. Mr. Allen's brilliant paper had thrown up one thing in particular, which was that architecture was a 19th-century profession. It was an invention of the 19th century, which did not really represent the whole of what they were setting out to do. They had shed town planning some time ago, and not only did they work along with a lot of other professions who all grew up separately, but they had also this separate Institute of Town Planning which was doing something they should be doing. They should have a council (or something like that) and their purpose should be the study of environment with all those other professions that were allied to them: town planning, the engineers, and all the rest, taking their part in a study which Mr. Maxwell Fry did not like to call 'research' because – give a dog a bad name! – it was more like search, because it had to set its objectives and confine them rather than just examine everything that came within its orbit.

The chief problem of life and society today was the question of the environment that would fit it in the rest of the century; but there was no single means of studying this and correlating the immense number of experiments which took place. Every building they did was an experiment which they did not study sufficiently. Therefore, if they could think of running an organisation – a search organisation – for environment, which would bring everyone in (it would use the LCC which was one of their biggest searchers into environment) and be like a sort of workshop with a philosophy and with an active practice which was trying to find environment and which therefore was able to use development, all the allied professions would cease to be a 19th-century thing and become a service to the community.

Professor J. H. Napper, AMTPI [*F*], asked Mr. Allen whether he would agree with an opinion that this vast mass of information, this panorama of the things that had to be done were means to achieve those things for which architects were best fitted, which were organising environment, designing buildings, and so on.

He mentioned two of the things Mr. Allen had quoted as examples which would serve to illustrate his point. They had seen an example of the first one in the programme for schools – that every building type should be a subject for research. By whom? Was it the architect? Was it the client? In the case of the Ministry of Education, imagination, which centred round the architect's department, produced the method of briefing the architect, of finding out what the problem was. That, of course, was recognised as a method which could be applied to other building types, but it was not being applied – at least, not yet.

As Professor Napper saw it, this was something which should be conducted as a policy by the Institute with other bodies, like post-graduate schools. He thought everyone was agreed on that.

The other thing was the classification of technical information, which the Institute was already doing something about. Here was a tool which could be used in the schools, as opposed to the cramming of technical information.

All these methods, all these organisations, were things which should be directed to this end – to free the architect to do his proper work.

Mr. John C. Stillman [*A*] referred to Mr. Fry's mention of the 19th century and the changes that had taken place; he understood that the general contractor (as he was known today) started life in the 19th century as a person often able to carry out a whole host of different activities, and this, to some extent, might have put the client in the position of requiring an agent: somebody who could understand what was being offered, and whether the price was right, and so on. This somewhat less gentlemanly aspect of the architect's work was no doubt important in the 19th century.

Mr. Stillman asked Mr. Allen whether he thought that they should work towards the time when this was less important, or that they had worked towards it, and the time when the architect's function as a protector of the client against what had perhaps been thought of as sometimes unscrupulously competitive contractors had gone out; and whether they would be able to look upon the contracting side in more professional terms.

He thought the Institute of Builders looked towards their own Institute as something that was becoming more professional in its terms. Mr. Allen had mentioned their taking on

these attributes of a profession and that seemed to him an interesting matter to contemplate.

Mr. J. E. Greatorex, MIHVE, first of all congratulated Mr. Allen on a most interesting paper. He thought Mr. Allen was a very brave man.

Once Mr. Greatorex had taught heating and ventilating to architects. As he understood it, Mr. Allen was saying that architects did not learn sufficient about the technical or scientific side. As far as he remembered the syllabus, it went quite a way into heating and ventilating; he believed lighting was taken as well. Mr. Greatorex would not have thought it necessary to learn more than was in the syllabus at the moment. Indeed, he had learned quite a lot himself during that time.

He would like to see the architect concentrating more upon his designs and his elevations and the aesthetic appearance, instead of building so as to hide the services; and also utilising the engineering services specialist to a greater extent than when considering the engineering services amongst a large number of contractors and so on.

Mr. R. Harrison, MIHVE, said that as an engineer he was most interested in the very pertinent remarks made by Mr. Allen about the engineering profession. What gave Mr. Harrison most cause for thought had been the fragmentation which Mr. Allen had remarked upon; it might be that this fragmentation was necessary in the purely technological aspect of their work because everything got more and more complicated until they might face the difficulty of finishing up with the classic situation of knowing almost everything about nothing at all! But Mr. Harrison thought this could be reconciled, taking up Mr. Maxwell Fry's point, because while there might be a study on increasingly narrow lines from the technological angle and the computational point of view, there was every reason why there must be even closer collaboration. At the moment, the collaboration was not always close in the social aspects of the work and, as Mr. Allen said, in the service to the community. He thought most of the professions were contributing more and more to work in committees and work outside their offices, which was most valuable, not only helping the community but incidentally helping themselves.

The second point was obviously one of the keynotes of Mr. Allen's most excellent paper: the team-work. A team must not be a pyramid with a chain of command, or any rigid formal hierarchy. It must be a team in the sporting sense, and normally the captain of the team had certain well-defined responsibilities and duties, but he was there as a sound, competent performer and to direct the efforts of other sound and competent performers. He would seldom instruct the other members of the team exactly how to carry out their functions, but would merely give them a general outline as to the effect or the result he wanted to achieve. Mr. Harrison thought that this was the collaboration which ought to exist amongst them.

He asked Mr. Allen whether he would consider that the orthodox arrangement of the architect being the captain of that team was invariable or whether he would accept that there were buildings or projects in which for reasons of practicability the civil engineer or the constructional engineer should be the directive force, taking the architect's opinion and his services consultant's opinion, and co-ordinating with some basically structural exercise.

Mr. T. V. S. Durrant, MICE, MTPI, said he was really there to apologise for the absence of his own President, who was very sorry that he was not present and would much regret that he had not heard the splendid paper by Mr. Allen.

There were two points which Mr. Durrant knew his President would want him to raise. The first was one that had been mentioned by Mr. Maxwell Fry: were the architects right to allow conditions to arise which made a separate profession of town planning necessary? He himself was not sure, as an engineer (though he was a professional planner as well), that it was wholly a separate profession, in that sense.

He had come to planning through the civil engineers and when, to his great honour and joy, he attained full membership, he felt he had to do his best to convince the Council that if he was not dealing with great sources of power in nature he was at least doing something about the house of man for the convenience of man.

He thought the planner had a different sort of job to do from the absolutely creative – physically creative – professions of architecture, engineering and, in its own slightly more abstract way, surveying. He thought the three were necessary, and that somewhere in the middle there had to be some co-ordinator.

Mr. Allen had spoken of the high sense of responsibility that every profession must have for its client; he hoped everyone in the present assembly would remember that in the broadest sense their clients were not always individual clients, but were sometimes the man in the street, who had the greatest difficulty in understanding what it was all about.

Professor A. J. Sutton Pippard, MBE, FRS, MICE, FRAES, expressed his thanks for the opportunity of hearing Mr. Allen's most excellent and thoughtful paper.

Professor Pippard always thought, when he read books and papers or thought about the question of the professions and professionalism, of perhaps one of the most well-known conversations in English literature, between Alice and Humpty Dumpty. Humpty Dumpty made the remark, 'When I use a word, it means just what I choose it to mean, neither more nor less'. Professor Pippard thought that the two words, 'profession' and 'professionalism' were rather words of that character. They meant so many things in so many contexts. There was, first of all, a professional as opposed to an amateur, the Players versus Gentlemen, where the professional got the money and the Gentleman was not supposed, at any rate, to get anything at all.

Then there was the other type of professional, Bill Sykes, out for loot, and the amateur gentleman crook, the 'Raffles'; he took the loot but he did not really need it; he only did it for fun.

There was the professional as opposed to the tradesman; they were both paid, they both got the money, and this, he felt, was where the danger of snobbishness came into the picture. They were concerned, of course, in their thoughts tonight with the third aspect of it; what constituted professionalism as opposed to tradesmanship, the trade. He thought everyone had a general idea of what they meant by the term.

He was interested that Mr. Allen gave four requirements for professionalism, and Professor Pippard agreed with those but felt that there was something lacking in them. Mr. Allen had finished up with four words – science, experience, purpose and efficiency. Professor Pippard thought there was a fifth, which Mr. Allen had not really omitted, for perhaps it came under 'purpose': the moral aspect of it. He would put it simply: that the work meant more than the reward. They had heard tonight about a certain analysis of salaries and wages in which the profession of architects and his own profession appeared in a very lowly position. If he was right about this, it would appear to prove that this list should be inverted in order to judge which were the most professional of the so-called professions. In fact, he suggested that professionalism really was an attitude towards life and work, and any calling became a profession just as soon as the general body of its practitioners accepted that view of things. He said 'the general body' because this rule could be applied to one or two of the cases Mr. Allen had mentioned.

Apart from the book that had been quoted, there was another well-known book which he had very much enjoyed when it was published, and that was *Professional People* by Lewis and Maude, which gave a very good analysis. For anyone who was interested in this subject, it was worth reading.

There was one point Mr. Allen might like to incorporate in his final remarks: Mr. Allen had referred to architectural clubs and the fact that the Institution of Civil Engineers had held its first meeting in 1818; Professor Pippard reminded him that in 1771 there was a society which later became the Smeatonian Society of Civil Engineers, which was still in existence and met six times a year for the sole purpose of dining, and consisted of 40 Civil Engineers and 20 gentlemen.

Mr. L. J. Holloway, FIOB, congratulated Mr. Allen on his paper. Mr. Allen had put a question which, as an individual, he could perhaps try to answer.

One of the greatest responsibilities of their two Institutes was to see to it that the people they brought into the industry were trained to the highest possible status for the work they were required to do. When Mr. Allen asked why it was that the builders were seeking a professional status, Mr. Holloway's answer was that they were, by their training, seeking to gain recognition for equal status with other people of their own level within the industry. Mr. Allen referred in his paper to snobbishness and had referred earlier on to mutual respect. They had found, over the years, that there was not as much respect for them as they would like and therefore they had sought, by raising their standards, that respect: and for the status of a builder to be the equivalent of that of an architect: to be accepted in their own right as people of equal integrity and of equal capability. Not having found ways of doing this other than by the way they had tried, he thought his answer to Mr. Allen on that point would be that as soon as they got the status that they thought they were entitled to (which they were prepared to grant to other people) then their desires for professional status would disappear, because they would have received that status.

Another point was the question of the architect going into commerce, and being permitted to join boards of directors. They in the building industry would welcome qualified people to assist them in the work they had to do, and although they were able to employ architects, that was usually not quite good enough; when a man had done his training, and had experience in practice, surely he must be of great value on the board of a building company. It was Mr. Holloway's urgent hope that one of these days they would see this prohibition removed.

There had been a slight dig through the paper that 'commercialism' was perhaps a dirty word. Perhaps a little more commercialism in architects' offices might raise them a little higher in the 'league' tables referred to.

Someone had used a word which was frequently heard in these discussions, and it was a word which perhaps, in time, would disappear; it perhaps pointed the theme of what Mr. Holloway was trying to say. The word was: 'unscrupulous'. There were unscrupulous architects, there were unscrupulous quantity surveyors, there were unscrupulous builders; there were unscrupulous individuals in every trade, but the whole of any trade or profession should not be damned by the few black sheep that existed.

Mr. L. E. Kent, MICE (President, Institution of Structural Engineers), congratulated Mr. Allen for 'sticking his neck out'.

Mr. Kent pointed out that Mr. Allen said in his paper: 'I think we are alone among the professions in maintaining a prohibition of this kind. . . .' It was a condition of membership of the Association of Consulting Engineers that a man was not connected in any way with industry.

For his own part, Mr. Kent would welcome the sort of co-operation that Mr. Allen had indicated. His feelings on this point were very well known. He would be very happy for his Institution to collaborate in any way on this score.

The sporting aspect had been touched on by Mr. Harrison, who had talked about a team. Let there be a team, but let it not be forgotten that a team should go on the field together, at the same time.

Mr. L. W. Andrew, M INST GAS E, said that the bold and vigorous paper had literally frightened him. He thought it was a wonderful approach and absolutely right – a national approach. But surely there was a frightening responsibility, an increasing responsibility: making absolutely certain that the basis on which wide decisions were made was really up to date from the point of view of all the known facts.

Many had spoken of co-operation and communication of information. He supported those as the absolute keys. Mr. Allen had asked what other people thought of architects: Mr. Andrew said that they found them very formidable gentlemen, and added that he meant both those words.

In real architecture, the basic desire was to design a building as a complete whole, and for the benefit of the occupant of that building. Mr. Andrew was not sure that this was done. He asked Mr. Allen if it was not possible that, at times, being human, architects might get a little out of balance in terms of capital cost, appearance, and convenience of planning to the architect, in relation to all the other factors which had to be considered.

Mr. Andrew then asked two specific questions: whether the fuel industry were giving the architects the sort of information they wanted in the most useful form, and in a place where they could get at it and not forget it. When architects were considering their national and global arrangements, could he take it that other professions involved would have the opportunity for consultation in any of their far-reaching decisions, and the opportunity to comment on any findings which affected the issues and the various professions involved?

Sir Alexander Carr-Saunders, KBE, said he appreciated the opportunity of hearing Mr. Allen's most interesting and important paper.

Mr. Allen had referred to a work which Sir Alexander and his friend Paul Wilson had published on the professions; but that was 30 years ago, and Sir Alexander said he was hopelessly out of date. He did recollect that when they made their survey and looked at the chief professions, it had been like passing from one new world to another, each world having its own separate conventions, outlook, practices, using its own terminology, making its own allusions – all of which was very difficult for an outsider to interpret. Sir Alexander remembered feeling rather like a gate-crasher intruding on a number of family reunions. He remembered that when they intruded on the architects, one or two things had struck them. One saw that other professions were using a technique founded on the application of some natural or social science; the architects were doing more and introducing aesthetics. As Mr. Allen had said, they were artists. They had found that the proceedings of most professions were conducted in a somewhat humdrum way; but when they looked at the history of the architects' profession and read accounts of their meetings, they seemed to detect a certain emotional atmosphere. Sir Alexander had no criticism; it was very refreshing. That was one characteristic. They had also found it very difficult to recognise and define the scope and limitations of the work of an architect; but he did not think that in that they were very obtuse; he thought, as Mr. Allen had said, there was a real difficulty there.

Mr. Allen had mostly referred to current problems facing the professions, which Sir Alexander had listened to with much interest, but could say nothing about. There was one matter he had referred to of a general nature. He stressed the corporate responsibility of professions today. Sir Alexander was sure he was right. If one looked back, one saw that the professions had started as free-lance workers serving individual clients and, recognising their responsibility to those clients, had built up codes of ethics. The situation had changed now; the client was often a corporation. That meant the old code of professional ethics was not so relevant as it had been. It meant that there was a new form of responsibility, what was more or less a corporate responsibility. By that, Sir Alexander meant a responsibility of each profession to see

that so far as possible skilled, effective, honourable services of their special nature were not only made available to the public, in so far as the public needed them, but were used by the public. He agreed that professional bodies were not today fully living up to that new, special responsibility.

There were many reasons for that. One, he thought, might lie in the state of professional education. If the members of the profession were to realise their corporate responsibility to the public, it was surely obvious that they must see and grasp the setting of their profession in its social, economic and industrial context. Professional education did nothing whatsoever to help the professional student to see his profession in that way.

Everyone knew that professional education was overcrowded, with all the numerous special techniques. If anyone were to suggest that it would be advantageous to study outside subjects, or new subjects such as industrial economics or industrial conditions, the answer was there was no room. He did not regret that because he thought that if there was room, it would not do what was wanted. The mind of a professional student (or for that matter a specialist student) taking an honours degree in any subject was concentrated on his special subject or interest; if he was encouraged, or an attempt was made to force him to attend to something that was not apparently related to his subject, he thought this was a tiresome imposition and disregarded it, and it was of no effect. When it had been tried, as in the case of the engineers at some universities, it had really no beneficial result at all. It had been pointed out recently by Sir Eric Ashby, in his talks and his book, that in the course of special education (he had been speaking above all of technologists) subjects were dealt with again and again which had an impact on or were embodied in social, economic and industrial surroundings. There were, in fact, 'leads' out into this world throughout the professional education, and advantage could be taken of them to encourage professional and specialist students to learn about these things, not as something unconnected with their subjects but as something which was almost vitally connected with them, if they could only see the point.

Medicine was an obvious case. Health, or the lack of it, was embodied in the social, economic and industrial condition, but medical students were not sufficiently made aware of it and were not going to interest themselves in that side of things. Sir Alexander believed that was a way out and he only hoped that Sir Eric Ashby's very interesting plans would be considered.

Mr. Allen had summarised what he thought were the views of Paul Wilson and Sir Alexander about doctors and lawyers. He had made it appear that they were rather strongly critical of them. They were critical, but they did not mean to be quite so critical as was suggested. Mr. Allen also went on to say that those faults had largely been corrected. Sir Alexander was not sure that he could follow him. The fact was, he believed, if they thought about it again, they would say much the same, although it would not mean quite such harsh criticism as was suggested. He did not think they could yet give those professions quite such a clean bill of health as Mr. Allen suggested they ought to have.

Mr. Allen expressed thanks for the reception of his paper and replied briefly to the discussion. He has subsequently submitted the following considered reply.

The optimism of Mr. Buckle about the present working arrangements for the 'building team' is not shared by the author. Architects are troubled both by day-to-day difficulties and by more deep-seated differences of outlook. He would not make specific suggestions for improvement but leave this to official discussion.

Mr. Stillman and Mr. Holloway mentioned professionalism among builders. The author thinks that in developing a better educational background and a stronger ethical sense builders are moving in a direction which will be respected; but the development should surely take place for its own sake, not for outward status. Building is in the end an industry, not a profession, and he does not deplore commercial outlooks in it as long as they are healthy and lead to efficiency, quality and stability and not to exploitation.

Mr. Greatorex has misunderstood his remarks about technical training for architects. Quantity is often large enough or too large, but what is taught is often not what architects need for their type of responsibility.

The author accepts fully the view implied by Mr. Harrison that others besides architects might lead the design team. It depends on what kind of a problem a job presents. But if others are to lead, they too must train themselves for a strategic quality of thinking, and not the tactical levels which the narrowness of British engineering education tends to produce. Carr-Saunders and Wilson criticised this 30 years ago, but it has not been corrected.

Professor Pippard made several interesting comments. He perhaps misunderstood the author on snobbishness. The point is that some professional and scientific bodies look down upon those that seem less learned or more 'tainted' with trade interests, and tend then to avoid contacts. This is pandering to respectability, not looking at the job to be done. This is what the author regretted.

The author has read *Professional People* but upon advice postponed doing so until he had completed his own paper, so as to bring to it a fresh viewpoint. He found the book interesting.

The author wonders about Mr. Kent's statement that the team must go on the field together. In theory, yes, but in practice not easy, partly because of the difficulties about co-operation, and partly because most buildings of consequence need to be conceived in one mind, and this act often has to precede the choice of team. This is why the author emphasises the special type of technical training for architects that he describes.

In reply to Mr. Andrew, the author will refer comments on information about the gas services to the appropriate part of the Institute. As to inter-professional consultation on the larger questions of policy, he hopes this will take place.

The author endorses fully Sir Alexander Carr-Saunders's point, quoted from Sir Eric Ashby, about how to make a broad education seem relevant to a student of a technology.

The President, after he had put the vote of thanks to the meeting, said he had one more duty to perform. This was an unusual duty which had not happened before. With them they had their previous Secretary, who had retired. The Council had made him an Honorary Associate of the Institute, and the President said it gave him great pleasure to break with precedent by presenting him with a vellum denoting this fact.

Contributions in writing have been received from the following:

Professor Sir William Holford, PPTPI, FILA [*F*]: Mr. Allen has suggested that science, industry and the professions should take a less distant view of one another and profit from their interdependence.

I should like to add a brief comment on another kind of interdependence, namely that between the private, professional and public positions which the same architect may have to take in the course of his work. When the clients' programme has been rewritten, the facts and the objectives analysed, and advice taken from one's associates in a building operation, then the synthetic process – the creation of design – becomes essentially an individual thing. Naturally, the designer identifies himself closely with it: often he has to fight for it.

But if you are advising an estate, or a local authority, or making the case for a comprehensive plan, you do not fight for a design in detail, you fight for a plan – including the right of individual designers to make their various contributions to the unity of the scheme as a whole.

In another capacity altogether the same architect or planner has a duty to regard his experiences in the light of the public interest, and by this means to relate his work to the whole system of ideas which is current at the time. I suggest that these three roles are not mutually exclusive. Individual personalities can combine them – not always in equal proportions; and this Institute should, as Mr. Allen suggests in his paper, make it easier and more fruitful for him to do so.

As for discussion of building types, it is noticeable that men who know what they are doing and why they have done it are never in the least shy of offering their work for criticism. It is, oddly enough, when they are on unsure ground, dealing with the social and biological sciences rather than the mechanical ones, and with value judgments rather than measured surveys, that criticism is resented. Then taste becomes a tender part of their anatomy and they can hardly bear to have it disputed.

The Hon. Lionel Brett [*F*]: Mr. Allen's paper is one of the most important read at the RIBA for many years, for it is a serious introduction to fundamental decisions the Royal Institute will have to take very soon, if it is to have any long-term strategy at the back of its work in education, in servicing the profession and in public relations.

He sees, on the one hand, that 'we have to be at once artists, planners, technologists, and men of business, at a time when our art must still be experimental, our planning has to face fresh problems daily, our technology seems to expand like the universe, and new standards of management are demanded everywhere'. On the other hand he notes 'some tendency to amalgamate among professional organisations' and thinks it should be encouraged. He regrets that town planning ever became a separate profession, and I think he is right. What he does not do is to draw the inevitable conclusion – that something has got to give. If there is one cause of public doubts of our expertise it is that we are attempting too much.

It is too soon to offer more than a tentative and personal approach. My own is this. I believe that we must set ourselves to regain two territories we have abandoned since the Industrial Revolution. One is physical planning, and the other is structural engineering. The great planners and the great engineers (whatever they may call themselves) are architects, and those of us who are passionately concerned with environment, or with structures, speak the precise language of planners, or of engineers. Some rare geniuses may speak both, but on the whole we have to choose our field, and the problem for the profession will be to see that instead of splitting down the middle we unite these two related spheres of design within the great federation which Doxiadis would have us call ekistics.

But something has got to give, and two things suggest themselves. The first is that if architects are really to fly so high, they will need exceptional breadth of mind and academic discipline. This inevitably leads to the notion of a two-tier profession. The second is that the architect should divest himself of the role of policing the contractor. This leads, if you like, to the professionalisation of building, within which I have no doubt that the architect with a flair for organisation will be a vital member of the team.

But in fact the whole notion of professionalism is in process of dilution. Provided each does an honest job of work (and the market, if nothing else, finally sees to that), there seems no reason why we should regard the architect as a professional, the pharmacist as a semi-professional, and the carpenter as a workman. The vital thing is that each of us should take on neither more nor less than he can do with unchallengeable expertise.

Mr. John Harvey, MIHVE: I should like to add my thanks to those of the previous speakers to Mr. Allen for a very thought-provoking paper.

There are one or two points I should like to touch upon. I speak as a member of a firm of consulting engineers in the field of air-conditioning, heating and ventilating and electrical installations.

Mr. Allen speaks of the necessity for some single group seeing to the smooth collaboration of the building team and says that this duty is the architect's. No engineer in the field in which I operate will dispute this statement. This duty carries with it, however, the need for the architect to examine the means he employs for securing this smooth collaboration.

When Mr. Allen speaks of the building professions he gives the impression that the process is the same in each case. In fact more architects deal with specialist contractors than with consulting engineers.

If the specialist contractor is to be nominated then collaboration can be very smooth but at the expense of cost control. If there is to be competitive tendering and no consultant, then the architect must lean more or less heavily on one specialist contractor while disclaiming any commitment to place the contract with that firm. Collaboration in that case is not quite so smooth. If there is a properly appointed consulting engineer then collaboration is at its best, because the planning can be completed in detail before going out to tender.

The other matter which the architect must examine is the means he employs for selecting a consulting engineer. Your Institute does not liaise with the Institution of Heating and Ventilating Engineers in this context. Possibly you approach the Association of Consulting Engineers. When discussing the building professions Mr. Allen's paper refers to structural, heating and ventilating and electrical and finally mechanical equipment in that order. It is presumably the order of importance in the minds of most architects. But the Association of Consulting Engineers recognises neither the Structural Engineers' Institution nor the Institution of Heating and Ventilating Engineers, so that if you apply for a structural you will be given a civil and if you apply for a heating and ventilating engineer, you will be given a mechanical engineer.

The reason for this is not hard to find. The Association of Consulting Engineers is composed predominantly of civil engineers. Their main work consists of harbours and docks, roads and bridges, hydro-electric schemes and the like, and for this work mechanical and electrical engineers are required to complete the team. The civil engineer's interest in buildings is remote.

You are in the same position as the civil engineer to the extent that you need other professions to complete your team, but the members are not the same. The Civils, Electricals and Mechanicals have fields of their own, but if there were no architects there would be no heating and ventilating engineers. The heating and ventilating engineer, therefore, will be the keenest member of your team.

I would like to conclude my remarks with the suggestion that you might consider a permanent 'building team' committee, upon which would sit members of the engineering institutions which Mr. Allen regards as essential – the Structurals, the Heating and Ventilating and the Electricals.

Peter Cowan [*A*]: The problems which we face as a profession today seem to me to be grouped under four headings:

Communication
Education
Organisation
Collaboration

so perhaps I can deal with each heading in turn, although they are all essentially interrelated.

Communication. The fragmentation of skills of which Mr. Allen spoke, and which other speakers also raised, seems to me an inevitable process, which must continue in view of the ever-increasing size and complexity of the body of knowledge connected with the building industry.

This fragmentation process has overtaken the fields of

science some time ago, with the result that now scientists in differing specialties have difficulty in communicating with each other on scientific topics without very special language problems being first overcome.

We as architects having arrived at the fragmentation stage rather later than the scientists, have the benefit of their experience to draw upon, and therefore the breakdown of communication need not affect us if we learn our lessons properly. Our first requirement for communication in any language is to define or redefine the terminology used. The terminology used in architecture and by architects has, over the years, become debased. This was in evidence in the discussion when the definitions applied by different individuals to even such basic terms as 'profession' and 'architecture' were obviously arrived at by differing methods. It seems to me essential therefore that concerted efforts should be made by all concerned to attack this problem of communication by perhaps setting up collaborative bodies under the aegis of the Institute or even as a research project at a university.

Education. I agree with Mr. Allen's comments on the need for a basic approach to technical subjects which will give the student a methodological rather than a computational approach.

This, I think, should be the approach to all teaching; in other words, we should try to teach a method for analysing any problem in a logical sequence of steps which will lead to a solution, either via the inevitable build-up of facts, or by an intuitive jump (the creative step) which must be arrived at in the light of the facts gathered. At present our method of teaching design in most schools seems to be that one builds up an idea in one's mind and then tries to fit the facts to it.

In the wider context of education, I should like to feel that more attention would be paid to post-graduate studies as recommended by the Oxford Committee. I should also like to feel that such post-graduate studies should count for something in the profession, and be acknowledged in some positive form, by a diploma or other award. This is done in medicine, where merit awards, given for post-graduate studies, are taken very much into account in assessing candidates for any post. What is more, the doctor is encouraged to put these diplomas and awards in his qualification, and to use them in his title, etc.

If such a system of merit awards were initiated for architecture, it would tend to give us the means of sorting people, and by assessing which type of merit awards a person had got it would be possible to find out which branch of practice that person seemed most suited for and interested in. The main thing is, as was pointed out, that an ARIBA should not be regarded as the last step in learning, and that it should really be only a basis on which to build a true education.

Organisation. An Institute is only as strong as its committees, and the committees must form a basis for all the activities of the Institute - but the committees at the moment are composed mostly of principals in private practice, and the younger assistants, who have great enthusiasm, do not get a look in. It seems to me that there is a place in every committee for at least one salaried assistant, particularly on the technical and information side. I am sure that there are many able people who would be only too ready to devote their spare time to such work.

Collaboration. The ideas expressed about collaboration between various sections of the industry were very welcome, but the collaboration or liaison between the separate skills should take place primarily on a technical level. I cannot see any advantage in having high-powered jamborees where the top people of each organisation gather at which sentiments of goodwill are aired by everyone, but nothing gets done. This ties up with the previous remarks on communication and organisation, and it seems to me that technical and information committee work on a sound and workmanlike basis, taking account of the salaried assistants who form the vast body of most of the organisation, is the best and, in fact, the only way of obtaining real collaboration.

J. G. Osborne, FRICS, Honorary Secretary of the Quantity Surveyors Committee of the RICS:

Whilst agreeing with Mr. Allen's definition of a profession I think that special emphasis should be placed on the point that members of the public, bombarded as they are nowadays from all sides by extravagant and sometimes misleading claims by industry, expect from a profession advice unbiased by personal interest. Indeed I would say that the true test of a professional man is whether he looks at a particular problem from the point of view of what is best for his client or what is best for himself.

I would remind Mr. Allen that the Association of Consulting Engineers and the Royal Institution of Chartered Surveyors do not admit members of staffs (or directors) of firms of contractors, so that he is not correct in saying that the RIBA is alone among the professions in maintaining a prohibition of this kind. The RICS's ban certainly does not arise from any snobbishness or prejudice; chartered surveyors and quantity surveyors in particular have a very high respect for builders' estimators and surveyors. The ban arises solely because the Institution feels that by maintaining this principle its members can best serve, and keep the confidence of, the public. A simple illustration is the National Schedule of Daywork Charges which is negotiated on behalf of the public by the Institution with the contractors. What faith would the public and indeed architects have in such a document if contractors were also represented in the RICS? Similar considerations would apply to other jointly negotiated documents.

The Association of Consulting Engineers is an illustration of what happens when a body like the Civils consists of professional engineers and members of contracting firms; the professional engineers find it necessary to set up a separate organisation to deal with professional matters.

I would also suggest that as the registration of architects is by title and not by the more usual one of function, the Architects' Registration Council and the RIBA have a special duty to the public to see that the positions held and the duties carried out by registered architects are those that the public would reasonably expect of a professional man protected by a Royal Charter and an Act of Parliament.

These are some of the reasons why members of the RICS view with some misgivings the suggestion that architects may be permitted to become directors of contracting firms.

Mr. Allen's paper dealt at some length with education and training and on these subjects the RICS is completely reviewing its whole policy including the examination structure, and it may well be that the next few years may see some major revisions.

I was a little surprised to see that there is no mention in Mr. Allen's paper of the package dealer, that is the contractor who offers the all-in service, thus, he claims, dispensing with the independent architect and engineer and possibly also with the independent quantity surveyor. Some say that this is not a threat to the architect as he has to be employed to design the building in any case, but I would suggest that such a system is a threat to the architect's profession.

I think that we should have joint consultations about this problem and look at it as professional people to find out what we consider to be best for the client, and if we decide that, under normal circumstances, the professional architect, engineer and quantity surveyor acting as a team independently of the contractor is the best answer, then we should take steps to see that the prospective building owner is made aware of the benefits in obtaining value for money that a competent independent team of professional consultants can bring to him. I would suggest that the following matters should be considered:

1. Examination of our methods in order to increase our efficiency.

2. Improvement of public relations, in particular some method of informing the public that the competent independent professional team can compete in every way with the services offered by the package dealer.
3. Consortia of professional firms who would be able to undertake all professional services at an all-in fee to the client, thus eliminating a possible cause of friction.

In conclusion, I think that the RIBA is to be congratulated on arranging for the presentation of this paper and so giving us all the opportunity, so sadly lacking in these busy days, of pausing for a moment to consider where we are going.

Mr. G. A. Atkinson [*A*]: First, to amplify Mr. Percy Johnson-Marshall's history. The French Academy of Architecture (1671) was one of Louis XIV's academic institutions, part of his state cultural machinery; but it was a separate institution from the Academy (1663) – of the fine arts – and the Academy of Science (1666). It had no direct connection with engineering. Vauban, by getting the 'Corps des Ingénieurs du Génie' (1675) set up, ensured recognition in France for the professional military engineer with a scientific, largely mathematical training. The public works (civil) engineer dates from 1716 with the establishment of the 'Corps des Ingénieurs des Ponts et Chaussées'.

These were the first modern building and civil engineering professions. They were state-supported and controlled, with their hierarchy of protector, director, professors, practitioners (members and associates) and students; or, in the case of the Corps, of chief engineer, principal engineer, engineer and cadet or assistant engineer – titles to be adopted by government works organisations in many countries. They had their meetings with published proceedings (e.g. the *Procès-Verbaux de l'Académie Royale d'Architecture*, a set of which was recently acquired for the RIBA Library); their courses of lectures to students which, like François Blondel's *Cours d'Architecture* (1675–98), became embodied in textbooks. Architectural training in France went through many vicissitudes but it has, through the official 'École des Beaux Arts', remained closely associated with the state; the French architectural qualification is 'Architecte Diplômé par le Gouvernement'.

The French public works engineer's training was more formal and thorough. From a school for draughtsmen, the 'École des Ponts et Chaussées' was created in 1747. During the 18th and early 19th centuries its professors, usually mathematicians who had also practised in the field as engineers, developed the structural and hydraulic engineering theory of the industrial revolution. It published one of the first technical engineering journals (1794) and the last universal book on architecture and civil engineering, J. B. Rondolet's *L'Art de Bâtir* (1802–17). It continues to train French government engineers (after a preliminary general technological education at the 'École Polytechnique', established in the French Revolution) who have to serve a number of years in the public service after qualification.

In contrast, the British professional system owed its growth to the enthusiasm and initiative of leading consultants in the professions and was largely based on private practice. The exception is the Royal Academy founded in 1768 with official support and premises. Despite distinguished architect academicians, like Sir William Chambers, its first Treasurer, it has done little to advance architectural learning or the profession of architecture. This was left to practitioners outside the Royal Academy who from the Architects' Club (1791) to the first meeting of the Royal Institute of British Architects (1834) were trying to found a suitable professional organisation. (The civil engineers, who had no Academy in the background, were able to achieve their Institution by 1818.) It is interesting to note that both owed much in their foundation to the support of two great men, Soane and Telford, who were independent of government ties and were wealthy through professional practice.

Unlike the French official system of academies, schools, and corps – which would seem broadly to be the present pattern of the organisation in the Soviet Union – the architectural and engineering professional institutes in Britain have up to recently depended for funds and active committee members largely on the private consultant.

Post-war Britain saw a swing in the professions to salaried employment at – according to the recent Royal Commission's findings – a low average of remuneration. For a year or so the revised rules for allowances under Schedule E may postpone the full impact of increased professional subscriptions. But can the institutes continue to ignore the effect of the change in the way members are remunerated? Will they have to turn from being learned societies to becoming professional trade unions? Will they be forced to seek support from the state on the French (and Soviet) pattern? Or will it be possible to evolve a compromise solution in which, on the one hand, professional institutes – still independent – provide, in Allen's words, 'a specialised and impartial intellectual service to the community' – as increasingly they do – and, on the other hand, corporations – in the wider sense – supply their professional servants with the means, in terms of time and money, for full participation in institutional affairs – as the more enlightened do already?

Mr. W. A. Allen's reply to written contributions

I am indebted to the contributors for their interested discussion of the paper. Most of the points they make stand resolutely on their own arguments without comment from me, and those upon which I make no remark have my full support.

I think readers might compare the contributions of Mr. Osborne and Mr. Harvey in respect of the Association of Consulting Engineers. The information which Mr. Harvey gives upon the latter is particularly interesting. Mr. Osborne seems to me to overlook the fact that by its title the Association would not include other than private consultants and naturally therefore it must exclude the salaried employees in which the RIBA takes an equal interest. The Association could not therefore do other than maintain its prohibition but it is scarcely a representative professional organisation in the sense which I have been discussing; it is in fact exactly what its title suggests, a mechanism for intercommunication between the members of consulting engineers' firms. I understand it will not even admit representatives of firms which are both architectural and engineering consultants. I do not think I would be very happy to see an Association of this kind set up among consulting architects.

On the other hand his remarks about the RICS seem more relevant although even so I would have thought that the merits of including members of building firms in their Institution might be sufficient to warrant finding some other way of ensuring impartiality on behalf of the public for such a case as he illustrates.

I omitted the package-dealer along with a number of other professional problems through sheer lack of space; and it did not seem to me to be something which could be dealt with by the Institute as a matter of principle. Consequently I put it beyond the border line of my remarks. However, I think his views about consortia are ones which we should actively consider.

Mr. Harvey's frank discussion of the problems among engineers seems to me to extend my own view very usefully and sympathetically. I think all architects will welcome the attitude it betokens, and that his points will be taken up.

Mr. Cowan does not convince me that fragmentation is either inevitable or good. Fundamentally it seems to go against the necessities of good organisation and I believe it will generally be found to be a transient phase in any development.

On the other hand, his idea of merit awards for post-graduate studies attracts me very much and I hope it will be considered by the new Board.

In defence of the Institute's policy of staffing Committees, I would like to say that for many years the practice has been maintained of bringing in a proportion of younger members, and I hope that this will continue to be the case.

The Architect and the Church

A brief report of the Conference on 'The Architect and the Church' appeared in the April JOURNAL. A fuller report is given below:

A two-day conference held in London under the auspices of Christian Teamwork on 4 and 5 March gave valuable endorsement to the conclusions of the 1959 Bossey Conference. Last May, representatives of ten European countries and of the USA had met at the Ecumenical Institute of the World Council of Churches at Bossey, Geneva, and after a week's study of the problems of contemporary church building had hammered out a thirteen-point statement on architecture in relation to the needs of the Christian Church. This statement received wide publicity and has become known as the Bossey Statement.

Now, under the chairmanship of Edward D. Mills, CBE [*F*], who was one of the participants of the earlier conference, about 80 architects and clergymen representing most denominations outside Roman Catholicism discussed the art of church building against the general background provided by the Bossey Statement. In this, Great Britain has been the first country to take the initiative in organising a follow-up conference.

It is a striking testimony to the inherent soundness of the Bossey Statement that not one of its clauses was challenged on this occasion. Though the conference delegates were under no obligation to accept it, its validity was implicit in the speeches made, many of its points being repeatedly confirmed so that in the end it appeared to crystallise the deliberations of the present conference as much as it had done when first propounded at Geneva.

It has to be admitted as part of the background of the conference that the contribution of this country in the field of contemporary church architecture has so far proved disappointing. One has only to think of developments in school design, housing, or industrial buildings to realise how far the development of church architecture has lagged behind the progress made in other fields. It is easy to find reasons for this, but they do not appear to carry much weight after a survey of recent work in Continental countries which was shown at the conference and which suggests a very substantial time lag between the inception of new ideas and their translation into new church buildings in this country.

For this is one of the great church building periods. Certainly there is much rethinking within the denominations as to the functional requirements of new buildings. In the Church of England, however, the influence of the new liturgy was somewhat exaggerated by delegates, and it would need a good deal of specialist knowledge to say exactly what kind of revolution was being enacted in what one speaker was good-humouredly allowed to define as the 'Protestant underworld'. Churches are now being built in great numbers to serve new centres of population. A comparison was drawn with the time of the Reformation when a much more radical reorientation in religious observance was accompanied by no new church building whatever. But there can be no comparison with earlier periods of large-scale church building when a universal culture provided an established framework for the architect's activity. Today, successful new buildings are all too rare and the best of them need wide publicity and careful study. A small exhibition was arranged at the conference which gave architects the opportunity of showing and discussing examples of their own work.

The conference studied the problems of church design first from the point of view of the Church as client and secondly from the side of the architect. Each had plenty to say about the shortcomings of the other but surprisingly there was no opposition whatever to the Bossey thesis that a good church building is the work of a single designer and that good churches are not built by members of the clergy or even by committees. This salutary recognition of the architect's function informed the whole study of the architect-church relationship.

Principal speakers from the clergy were the Rev. Gilbert Cope of the Church of England and the Rev. Douglas Wollen, a Methodist. The Rev. Gilbert Cope pointed out that new architectural forms arising from new materials and building techniques made it possible for architecture to assume an important role in the current movement towards liturgical reform, but the architect must understand what it was all about. So far as Anglicanism was concerned, its character could best be understood as the emergent synthesis from the dialectical encounter between the medieval western Church and the Protestant reformers. The particular genius of Anglicanism was to maintain a balance between the ministry of the Word and the ministry of the Sacraments, resulting in an equality of emphasis in planning between altar, font and pulpit. The Church of England steered a middle course between the extremes of mechanical ritualism on the one hand and of emotionalism on the other, its characteristic churches being neither 'theatrical' on the Roman Catholic pattern nor like concert halls as are some Free Church buildings. Ideally, the Anglican church was a functional building for the corporate doing of the liturgy and in Mr. Cope's view it was no use designing churches that conformed to an outdated liturgical pattern. We build for the future and architects must reckon with changing requirements. In particular, the domination of Anglican services by the clergy and ministers would give place to more truly corporate forms of worship and the present two main kinds of service, Holy Communion, requiring the use of the Communion table, and morning and evening prayer, with its emphasis on the pulpit would be fused into a form of service presenting less insoluble architectural problems.

Douglas Wollen reminded the conference that the Church had managed for centuries with no special buildings at all. Simplicity was the keynote of what Nonconformists required. He had no use for symbolism and was suspicious of architects who specialised in churches. He looked for architects who had built useful things like laboratories or bridges. They would understand what was required. 'Don't bother about atmosphere', he implored his audience: 'it would probably be a bad one if you do. The barnier the better; the more ecclesiastical the worse.' He wondered why there were so few good modern churches but found no shortage of bad buildings for other functions; a wave across the river to the South Bank and he assured us that only original sin could explain the tower of Babel now nearing completion on the site which held such promise in 1951. If there was one thing we needed today it was architectural criticism!

This awareness of architectural values was perhaps to have been expected from the clergy attending this conference, but when the architects' turn came to describe their experience of church work there was little praise for the role performed by church authorities and committees of any denomination, Paul Mauger quoting Ernesto Rogers's definition of the client as the person 'without whom, and very often even with whom, architecture was impossible'.

Mr. George Pace [*F*] described his own technique for putting ideas across to his clients. Briefly, his method was to sketch out preliminary designs in the clients' presence and persuade them to make their own model, thus encouraging them to identify themselves more closely with the development of a project. It was extremely difficult to maintain a design intact through all the inevitable negotiations with different authorities, but his methods helped to achieve this and he found it essential to allow very adequate time for the design of a church in consultation with its clergy. The client must not be allowed to insist on a hurried time-schedule; that could never be compatible with good church building. It was often hard enough getting the clergy to understand liturgical matters, quite apart from the architectural aspect of church design. On the financial side it was much better for the money to be raised by the parish itself than to rely on a substantial grant from outside. All this helped to establish a feeling of local participation and interest. He had a horror of works of art in a church. They could only be admitted as an integral part of the design, and there was a constant source of difficulty in the gifts made by well-meaning parishioners, often before the church was in existence.

Mr. Paul Mauger [*F*] emphasised the need for humility in the architect's approach and the possibilities arising from an imaginative use of structural elements. He had no quarrel with cost limitations but agreed that time limits were unacceptable. He deplored the use of unintelligible symbolism that could not function as a direct channel of communication between the architect and congregation.

It became only too clear in the conference discussions that there was at present an almost complete lack of understanding between the Church and the designer. There is a real need for more information, which might be supplied either by a central committee in each denomination or by advisory authorities. At present in the Church of England each parish is free to commission its own designs and to choose its architect. The diocesan advisory committees have no official function in relation to the design of new churches and there is no official directive on matters of liturgical planning. Delegates felt that Church authorities should certainly be encouraged to produce more factual information but this must not encroach on the architect's responsibility.

The conference showed up very clearly the wide divergencies of opinion within the Church on what was to be required of its new buildings. But it was agreed that the need to discuss these points of difference lay at the root of the ecumenical movement. A conference which brings together architects and clergy of different denominations for an interchange of their ideas and experience was an invaluable means of working towards unity. It provided the opportunity of educating Church authorities in the meaning of contemporary architecture, and for the education of architects in the requirements of the Church.

It is hoped that many more architects and clergy will be drawn into the orbit of future discussions of this kind. For in the end the superficiality of their differences can be brought into focus; there can be no surer way of helping both to follow their work of church design as an expression of Christian vocation.

Correspondence

Scale of Fees

The Editor, RIBA JOURNAL

Dear Sir,—In this month's edition of the JOURNAL under the heading 'Comparison of Professional Incomes' we are told that there is need for . . . 'a fundamental and long-term review of the Scale of Fees'.

There are few of us who will not agree with this recommendation, but would it not be more to the point to create machinery which will ensure that the present, and future, Scales of Fees are enforced?

It is widely recognised that the present threats of punishments contained in the Codes for infringements, such as undercutting the Scales, are quite ineffective because of the difficulties involved in proving that a breach of conduct has occurred. The Codes and Scales together are, by degree, regarded with contempt by some members of the profession to the general detriment of the majority of private practitioners.

'The Undercutter' of necessity must give an inferior service (or lose money if he or she gives adequate service, which is most unlikely), and in so doing not only obtains work by unfair competition, but, as often as not, is the cause of the lay-public's reluctance to either use or properly pay architects, whom they often regard as expensive luxuries only to be engaged if their fees are brought down to the level of charges made by builders and others for house plans etc.

Clients are often 'frightened off' from the outset by any indication by an architect that the fees for his or her services will be in accordance with 'the Scale'. It is not the Scale in itself that clients are put off by, as by the knowledge or belief that a cheaper service can be obtained elsewhere.

'Elsewhere' in this connection can be read as the 'All-in Service Operators', Contractors, and the less scrupulous members of our own profession, and last but not least those 'beyond the pale' who call themselves anything but 'Architect'.

There are to my mind practical remedies to the problem which in one effective form or another must be put into operation before the Scales of Fees and appropriate sections of the Codes are regarded in complete contempt by all concerned.

These remedies are as follows:

(*a*) Abandon the Quantum Meruit Scale, as it is too open to abuses which cannot easily be exposed.

(*b*) Make it obligatory, as a condition of membership of the Institute and the ARCUK Register, for all private practitioners to annually surrender an accurate and certified return of copies of accounts rendered to clients, shewing client's name and address, job location, services performed, and fee(s) charged or received, whether or not the works were executed in whole, part, or abandoned.

(*c*) For ARCUK, as the administrators of the Architects Act, to pass to the administrators of the country's Income Tax Laws, the Board of Inland Revenue, copies of the same returns. This would ensure that Undercutting of Scale of Fees and Income Tax evasion would jointly be made almost impossible. This action could easily be reciprocated by the Board of Inland Revenue, for it is only reasonable and logical that the legislation effecting the function of these two Statutory bodies (or any others for that matter) where their interests converge, should be facilitated by co-operation.

Those of us who have nothing to hide would have no objections to such modifications to our Codes, which would be calculated to ensure fair play, and prevent others from anti-social and unprofessional temptations, which at present sometimes go unresisted to the detriment of other members of the profession.

Yours faithfully,

ROBERT G. P. NUNAN [*A*]

Shops Symposium

Dear Sir,—I am writing as I trust you may welcome the views of one of your members who attended your 'Symposium on the Shop and its Environment'. Possibly this may be of assistance to you in formulating programmes in the future.

While on analysis my remarks will appear mainly critical I trust this will be accepted in the spirit of a sincere and unbiased attempt to look into the format of the Symposium.

Obviously at the outset it is superfluous for me to say that considerable value and indeed, pleasure was experienced in the informal discussion at the tea-break and after in the Members' Bar.

I feel that there should be greater emphasis on such informal exchange. After all, if the Symposium is meant to be exploratory the interchange of ideas between an informed audience is vital and I am assuming that the majority, like myself, are concerned in shopping development.

The idea of a panel of speakers dealing with different aspects forms a good basic background for discussions but detailed information from some of the speakers of facts which are common knowledge to most of us in our everyday work is unnecessary and indeed, cumbersome. It only causes the vital matters to be cluttered up with a mass of information that cannot be assimilated.

The discussion really never got going. Moreover, I do think it is important for the Chairman to exercise a firm control on the length of time each member from the floor is allowed to speak.

One gentleman, although his remarks were interesting, delivered in effect a lecture in miniature from the body of the hall.

It may be that you might care to publish some extracts of this letter in the monthly JOURNAL as I would certainly be interested in reading other impressions of the Symposium and this might spark off such correspondence.

Yours faithfully,

W. HOME [*A*]

The Geometrical Origins of Certain Curves in Pottery and Architecture

Dear Sir, – Members who knew Ronald Orfeur and those who read his paper published in the JOURNAL in November 1955 may be interested to know that the apparatus for measuring and drawing vase shapes which he developed has now been presented by his family to the British Museum where the Keeper tells me in a letter, he expects it to be most useful.

Yours faithfully,

PAUL V. MAUGER [*F*]

Report of the Committee on Architectural Education

Dear Sir, – You may be aware that a questionnaire regarding the basic opinions of the Members has been sent out privately and as there has been a good response, I am hoping that you will publish the results when they have been worked out.

One reason for this pilot survey is because the present Board of Architectural Education is so heavily loaded with representatives of the teaching profession. Anyone who thinks otherwise should read pages 6 and 7 of the new Kalendar.

Now from page 214 of the April JOURNAL I see that there is a recommendation that the new Board shall be similarly loaded – i.e. only four 'ordinary Members'.

From recent investigations, I happen to know that many Members feel strongly that this should not be so, and I therefore suggest that the new Board should consist *entirely* of ordinary Members nominated by the Allied Societies and then reduced to 15 by ballot.

As the present Board would still be operating as an Advisory Council, it seems vitally necessary that the new Board should *not* be a rubber stamp. Few people pretend that it would be a good thing if local Education Committees were composed mainly of teachers, and such an arrangement is even less desirable in the Architectural profession.

It is suggested that local Branches might first be asked which principle they agree with and that the Council then decide in

accordance with the wishes and considered opinions of the majority. And, as many do not attend Branch meetings, they should write direct to the Secretary of the Institute.

Yours faithfully,

EWART B. REDFERN [*A*]

Dear Sir, – Further to Mr. Beaty-Pownall's letter in the April issue, I should like to correct a point which appears to me to be misleading.

In answering whether part-time education will continue beyond 1961, Mr. Beaty-Pownall says that 'if sufficient boys require training outside the recognised courses it will be known by October 1961'.

The normal intake to part-time education in 1960 will be the last of the five GCE category. The probability is that anyone able to secure himself a place on these terms by that date in a system which is so obviously uncertain of what is happening next will do so. Therefore, the intake that would have come in in 1961 and 1962 will still be in its 6th Form taking two Advanced Level GCE. It is obvious, therefore, that the position cannot be clear until October 1963 at the earliest.

Yours faithfully,

ALAN MILLER [*F*]

Correction

Report of the Committee on Architectural Education

There was unfortunately a typing error of 'not' for 'now' in Mr. Beaty-Pownall's letter on page 218 of the April issue. The final paragraph should read:

3. The Board did not take this decision to raise the entry standard without due regard to the consequences. The number of people likely to enter the profession was estimated; so too was the fact that all students would now have to spend two years in an office before qualification. It was known that there would still be combined courses, and that the question of skilled assistance and its provision would have to be considered.

Book Reviews

Richard Neutra – 1950–60: Buildings and Projects.
By W. Boesiger. 9¼ in. 240 pp. illus. Zürich: Girsberger. 1959. £4.

If one had to cite an ideal example of the architect today, properly adjusted to and serving society in his work – work that takes advantage of every modern construction technique, always controlled by a fine artistic imagination – it would be hard to find a better example in the world than Richard Neutra.

Neutra is that rare case of a European artist being successfully transplanted in the New World. Ever since his first work there, over 30 years ago, he has continued to produce buildings of a consistently high standard, that are instantly recognisable and at the same time truly international in character.

This beautifully produced book from Switzerland covers the whole range of his practice from 1950–60. It is, nowadays, a very varied and large practice, ranging from houses to city planning projects, from small office blocks to schools.

It is significant that almost without exception the executed work, as distinct from the projected schemes, is of modest proportion - it is, in fact, on a European rather than on an American scale.

In Neutra's view the architect should stand in very much the same relationship to his client as a doctor to his patient – perhaps a neurological specialist – but definitely the relationship is a clinical one. Like Aalto he places man right at the centre of the problem where, of course, he must always stand. The aesthetic problems of building are of primary concern only to the architect – an overplus, as it were, to the satisfaction of the physical and psychological needs of the client. It is probably in houses that the architect can best study this biological approach to work. It is only here that there can be an intimate client–architect relationship. It is not surprising that houses have always made up such a large part of Neutra's practice.

Finally, reference must be made to the drawings, many from Neutra's own hand – these are of a rare excellence. Neutra has on his many travels always made a practice of recording impressions by drawings in his own special technique of pencil or ink and this book is much enhanced by the number of really delightful perspectives, plans, etc., which in themselves are models of presentation.

ALAN REIACH [*F*]

Concise Encyclopaedia of Architecture.
By Martin S. Briggs. Everyman Series. 7¾ in. 372 pp. illus. + 32 plates. Dent. 1959. £1 1*s*.

This handy volume offers very good value, providing the sort of information the architect or student might well need at short notice. The material is well chosen. Besides the definitions of many hundreds of terms, including those concerning the parts and composite features of buildings, there are articles on the broader classes of building; on town planning; on the methods of training and organisation of the architectural profession and accounts of related associations; and short biographies of distinguished architects of all nations, contemporary or historical, listing their principal works. With the author's choice among living architects none but those omitted will be inclined to disagree, but for the defunct, it seems a pity that pyramid-builder Imhotep, the first known in history and perhaps the only one ever to have been deified, should have been left out. The evolution of stylistic architecture is ably covered, and extended by miniature histories of the architecture of every main country in the two hemispheres. Bibliographical references are given wherever appropriate. The book represents a formidable task, expertly performed, and one which few who had not the very extensive knowledge and experience of the writer would have cared to face. Author of at least 25 books already, some of them now classics, he has summarised quite a little of his earlier writings in this single volume.

It is perhaps inevitable that where opinions and interpretations are concerned one should occasionally find oneself at variance with the author, or that in a work so replete with facts and figures that one or two slips should have escaped correction. 'Entasis' is not a 'convex *tapering*' of a column, nor would one agree that 'the earliest Roman architecture is called "Etruscan" '. Ambiguity arises in certain places. Such defects, however, are relatively few, and as a trial of several weeks of intensive use has shown, do not detract at all seriously from the very considerable merit of the whole.

R. A. CORDINGLEY [*F*]

Principles of Modern Building.
Vol. 1. 3rd ed. 9⅞ in. x + 302 pp., illus. DSIR (Building Research Station). HMSO. 1959. £1.

The first edition of Volume I dealt with 'Walls, Partitions and Chimneys'. This third edition also examines 'The Wall and its Functions', but in addition deals with the principles of the functional performance of a building as a whole. Volume II, which is to follow, will deal with the functions of floors and roofs.

The aim of the complete work is to bring together the knowledge of the Station in an effort to formulate the functions of a building and of the elements of which it is composed. As a result, this third edition is in fact an entirely new work notable for its comprehensiveness and the massive collection of detailed information of all kinds. It is solid with 'know-how', of failures, of risks of failure, of causes of failure and of the ways to succeed. There are several hundred subheadings and under a relatively minor one is often a wealth of concentrated knowledge. Many unfortunately are not in the Index: building element deformation, dimensional stability, joint design, pointing, thermal resistivity, wall, etc.

But in addition to knowledge of fact and a cautious awareness of the places where knowledge is still inadequate, there is, in most chapters, a not inconsiderable attempt to bring about a clear formulation of the functions of a building. And it is a real contribution to the understanding of building to isolate clearly the functions of the building considered as a whole from those of each of its parts.

Building science development is still impeded by problems of language. We still refer words applying to old forms to new concepts. The word 'wall' is used to describe vertical screens, while carrying heavy overtones of 11-in. brickwork.

In spite of these terminological and conceptual difficulties, which are by no means insignificant, the form of a modern building science begins to emerge. For its articulate realisation, thanks will be due very largely to the work of the staff of the Station and its Director.

No architect should ignore this book. He cannot fail to be a better builder for considering any part of it, and it will be a valuable reference on his bookshelf. For twenty shillings and some conscientious reading, he may well in due course give his client value for money as well as himself.

BRUCE MARTIN [*A*]

Mitchell's Advanced Building Construction: Components, Services and Finishes.
Revised by Denzil Nield. 17th ed. 7¾ in. 436 pp. incl. illus. Batsford. 1959. £1 1*s*.

In name this is the 17th edition of the well-known building construction book, but it is in fact a completely rewritten version of the earlier work. The series of two volumes will be completed in the autumn of 1960, when 'Structures' will be published.

The book under review is well written, fully informative and clearly illustrated, and is divided into eleven chapters covering joinery, metal-work, floor and other finishes, decoration, glazing, sanitation, hot water supply, heating and ventilation and electrical and other services. Each chapter is a mine of information with excellent cross-references to specialist books, codes of practice and other valuable sources of detailed references to each subject.

The whole tone of the writing and the diagrams is up-to-date, and the author has obviously made every effort to get the benefit of first-hand expert knowledge and experience. He has, however, retained some joinery details and introduced other traditional items, which are refreshing in austere and purely utilitarian surroundings.

Admirable as the book is, one or two small deficiencies will be noticed. For example, it is stated that the traditional forms of ball valve are described in the Elementary volume. They are only just mentioned there, and so the reader is left without this information. The diagram of the septic tank is for all practical purposes a repeat of that in the Elementary book, from which it might have been omitted, as the whole subject has been adequately dealt with in this volume. Overlapping, however, is no bad thing, so long as gaps are avoided.

This book can be thoroughly recommended, incorporating as it does the developments that have taken place in the post-war years.

Mitchell's Elementary Building Construction.
Revised by Raymond Moxley. 23rd ed. General Editor, Denzil Nield. 7¾ in. 376 pp. incl. illus. Batsford. 1959. 18*s*.

The new edition, the twenty-third, of this very well known book, has been completely rewritten and only retains the title and some redrawn illustrations of the much used and treasured earlier editions.

An elementary book should of necessity guide the reader through the basic principles of the subject. Many of the fundamentals are included, but the arrangement adopted in places will be confusing to students approaching the subject for the first time. An example of this occurs in the chapter dealing with roofs; some of the latest developments in the forms of trusses are described and illustrated before the basic truss forms from which they have developed.

The descriptions in numerous instances assume a previous knowledge, but if the volume is intended for reference purposes, many of the items are dealt with superficially. As a general introduction to up-to-date techniques and to sources from which fuller information can be obtained, the book is excellent; but the reviser has been tempted to cover too much ground, and this has led inevitably to a mere passing reference to many important items. He is divided in his attitude towards traditional and contemporary construction, although it is pleasing to see new techniques introduced. In this, however, a consistent line should have been maintained. It is noticeable that some traditional construction is retained, whilst other items are relegated to an appendix, giving the impression that they are unworthy, although modern ideas have undoubtedly developed from them.

The footnotes, giving clear direction to authoritative sources, codes of practice and the like, will prove most helpful, although it seems a pity that pieces of information which should be included in the text have been added as footnotes. The diagrams are clear, well drawn and annotated, but some small, though vital, errors have been allowed to creep in.

It is certain that this edition will be used and appreciated like the earlier ones, and that it will prove a valuable addition to technical libraries.

L. G. SKELTON [*A*]

English Art, 1216–1307.
By Peter Brieger (The Oxford History of English Art). 9¾ in. 320 pp. + 96 plates. Oxford: Clarendon Press. 1957. £2 10*s*.

The Oxford History of English Art is to be complete in eleven volumes. The author of this one – Volume IV – is the Professor of Art and Archaeology at Toronto University. It is a very notable book, both for the depth of its learning and for the skill with which all the branches of art in the period are displayed simultaneously. In fact, it has conveyed to me, at least, the high achievement of the 13th century more forcibly than anything I have read. It is written, too, in language which is never dull and is often exciting.

The author's handling of such a comprehensive subject is interesting. Architecture, of course, is the foundation of the study, but only the foundation. Hence Professor Brieger has dropped the established names of styles like 'Early English', 'Geometrical' or 'Decorated' for the sensible reason that they are too much associated with building alone. Instead, he divides the century into three parts labelled The Episcopal, The Regal and The Seigneurial, because that nomenclature reflects so pointedly the prevailing patronage.

The enthusiasm of the bishops for putting their dioceses in order, after the confusion and insecurity of John's reign, was fanned by the zeal of that great Englishman, King Henry III; and glories of the episcopal dominance were the whole of Salisbury Cathedral and the bulk of Lincoln and Wells. The analysis of the style is very crisp. Even vaulting problems are made intelligible; such practical items as the import of Purbeck marble up the east coast to the mouths of rivers like the Ouse, the Witham, the Humber and the Wear add a vivid reality; and we see how the enlightened guidance of the bishops, during the first years of Henry's reign, produced a new art which, during a short spell – as short as that during which Phidias or Raphael worked – touched perfection. The summit was reached, unquestionably, in the choir of Beverley Minster.

The theme of the book is then switched to a study of Bibles and psalters between 1220 and 1245. Some pages are devoted to the lively and inventive mind of W. de Brailes, that astonishing artist and illustrator. We discover here a close relation between the framing of illuminated letters and the quatrefoils on the west front of Wells Cathedral. The unity of the arts in the Episcopal phase is demonstrated now with the clarity we had already enjoyed in the analysis of structural design. It continues to enlighten as well the most admirable short study of Westminster Abbey – that fine flowering of the Regal style – when – as the author puts it – the solid strength of the Episcopal was softened by graceful refinement, and a delight in aesthetic pleasure is mingled with a devotional fervour, reflecting therein the character of the king. Notes on the Abbey's contemporary sculpture, furnishings, paintings and tiles are followed by a chapter on Matthew Paris, and his followers. Then a new interpretation of the Revelation of St John heralded the English illustrated apocalypses; and it is here that the photographs can be most appreciated, jointly with the text. Indeed, all the illustrations are singularly well chosen. There are, first, 27 drawings in the text – chiefly plans, but there are valuable interior elevations as well. These, when combined with 40 photographs of cathedrals and churches from different angles, illumine the architectural argument very adequately. Yet the 50 photographs of sculptural detail, of 'close-ups' from Wells Cathedral front, of tombs and effigies, of missals, psalters and apocalyptic scenes are what charmed me.

A short study of the 1283 rebuilding of old St Paul's, which made that church the largest in Europe, illustrates the Regal style of the century. This is followed by some learned thought on the nave of York and its great internal scale, on Exeter Cathedral and a few of the parish churches – like Winchelsea – which blossomed towards the very end of the century, into a richer flamboyancy. And it is this elaboration of the extreme rectitude of the style which we call 'Early English' that Professor Brieger seems to condemn. He regrets the time before when the arts reflected abstract truth and that, from the middle of the century, the style inclined towards a sophistication which carried in itself a seed of decay. Perhaps it did; but we, who deal in lines of structure and the use of ornament, will continue to delight in matronly splendour as well as virginal purity.

A. S. G. BUTLER [*F*]

Elsevier's Dictionary of Building Construction.
Ed. by C. J. van Mansum. 9 in. 481 pp. Elsevier Publishing Co. London: D. Van Nostrand Co. Ltd. 1959. £4 5*s*.

This book contains an alphabetical list of about 8,500 English words with equivalent terms or descriptions in French, Dutch and German. In addition, there are alphabetical index lists for the words in the three other languages.

The terms cover the building trade generally including building material, tools, and concepts used by the several sections of the industry. I find a number of current terms are missing (for example, building element and cost control), but this is probably inevitable when a technical science is in a state of revolutionary advance.

The page layout and format is excellent and the system of giving each English word a number proves very helpful in use. This would seem to be an essential reference book for anyone engaged on international building work.

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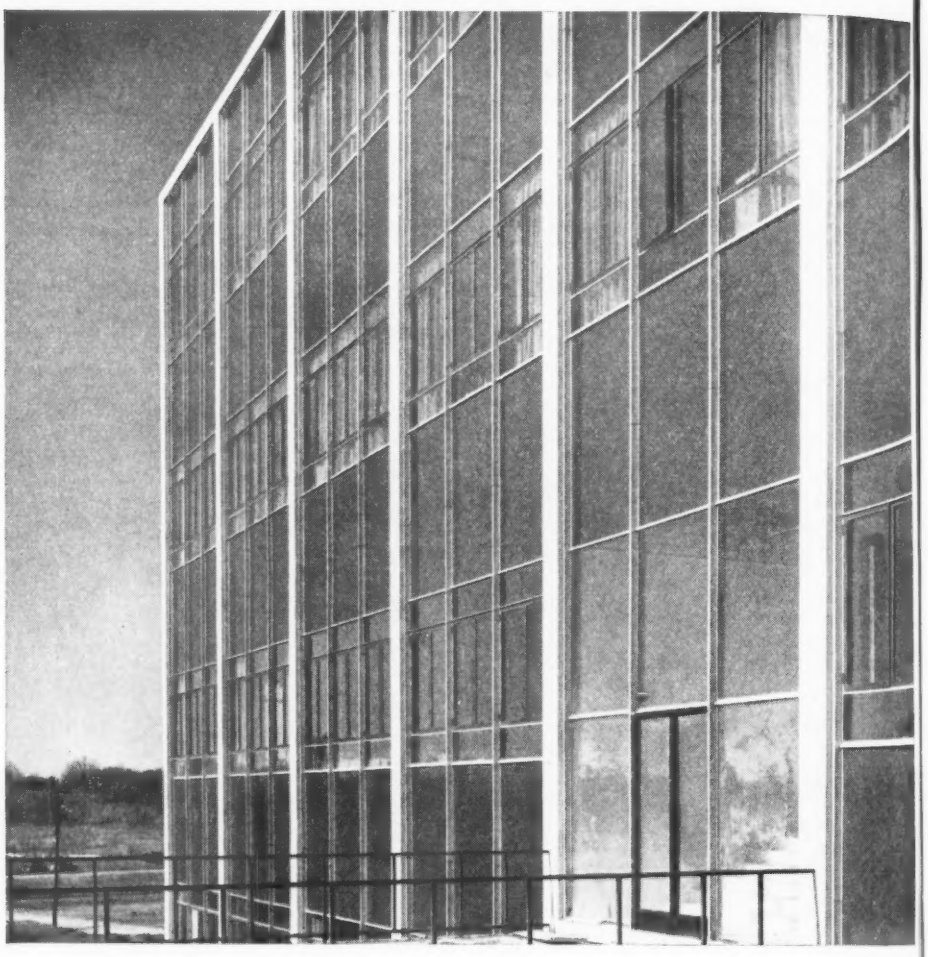

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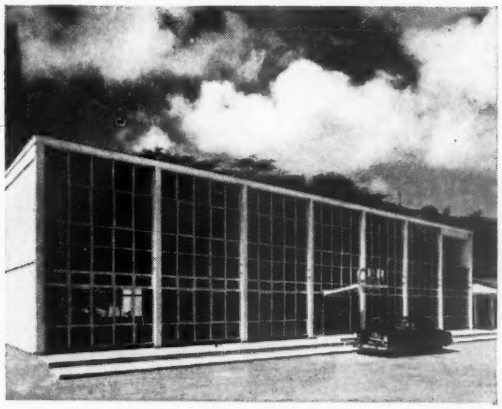

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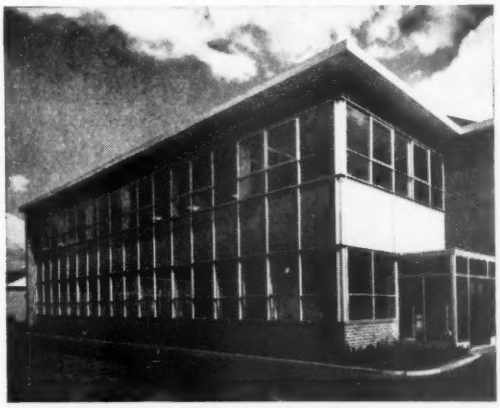

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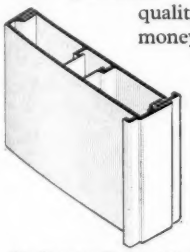

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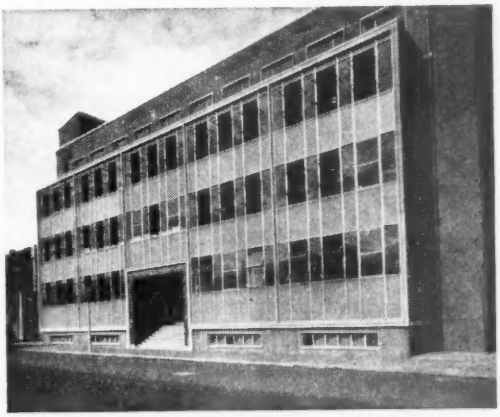

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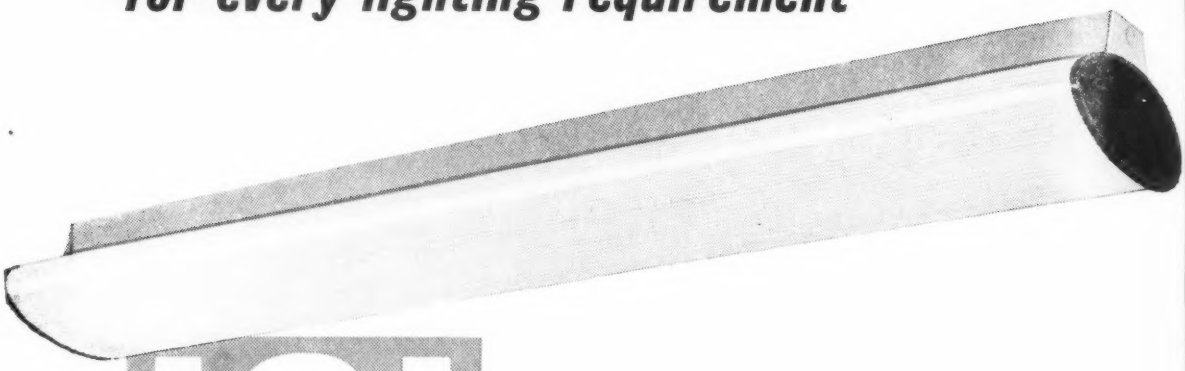

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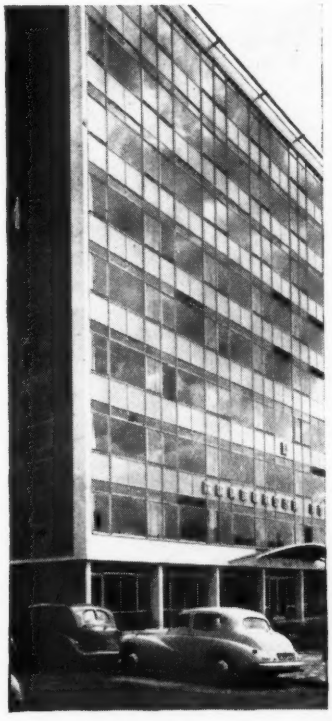

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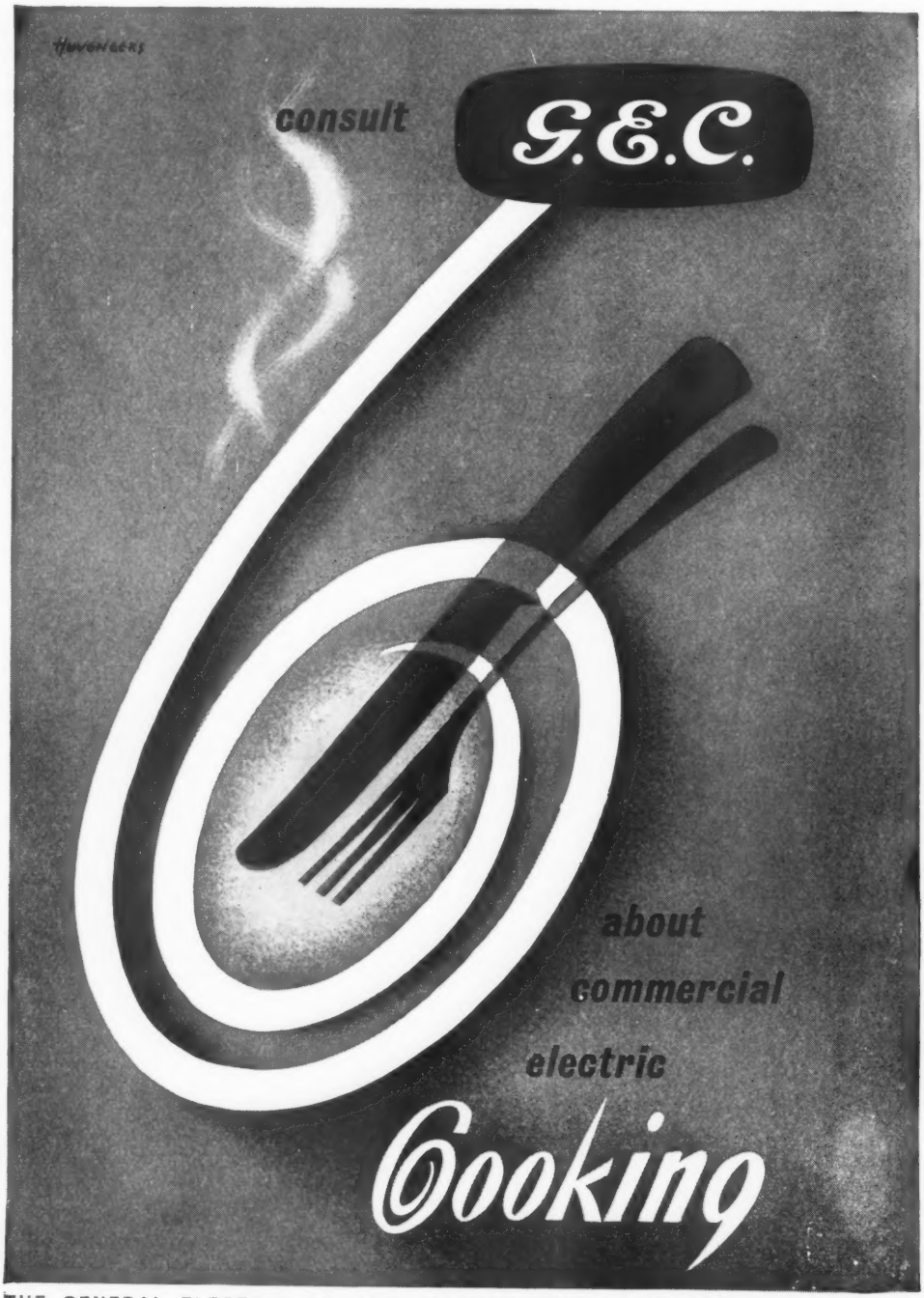

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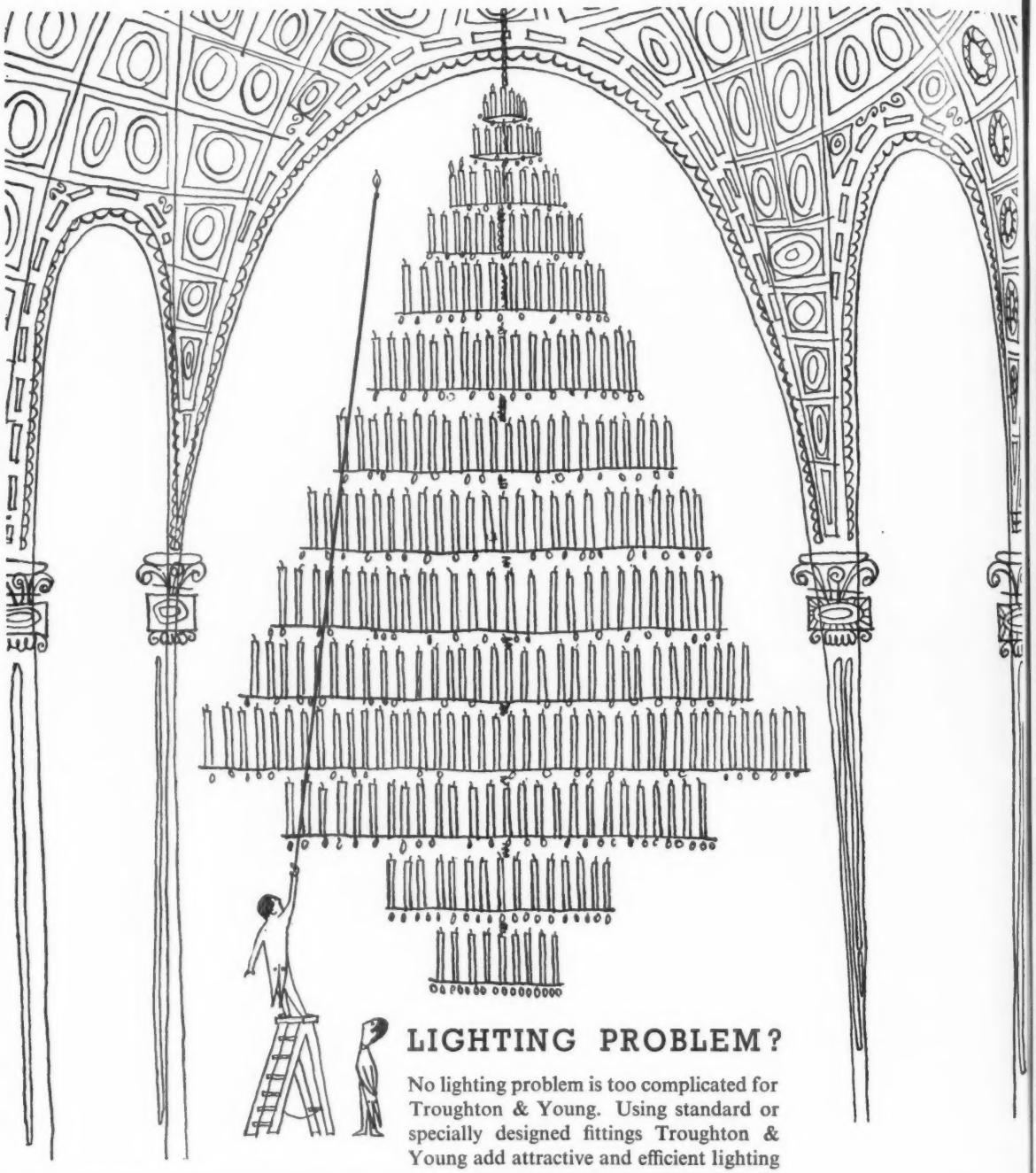

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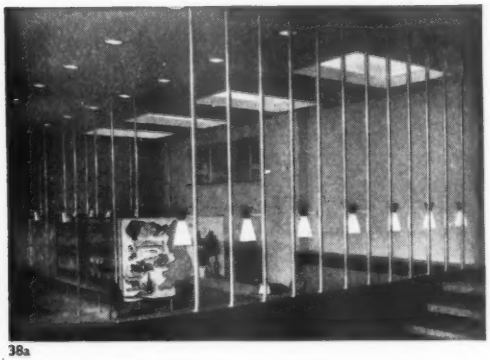

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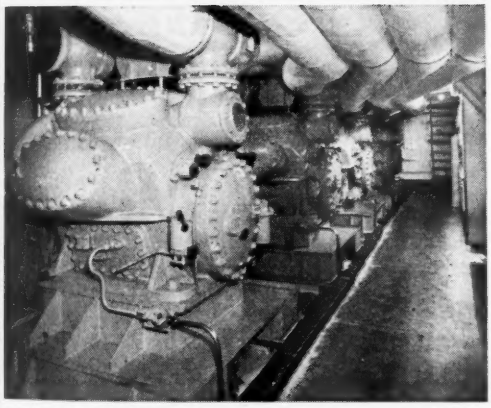

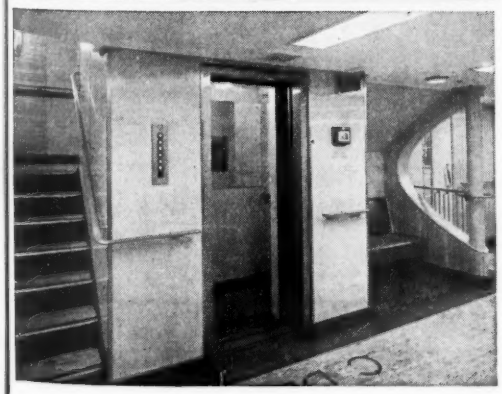

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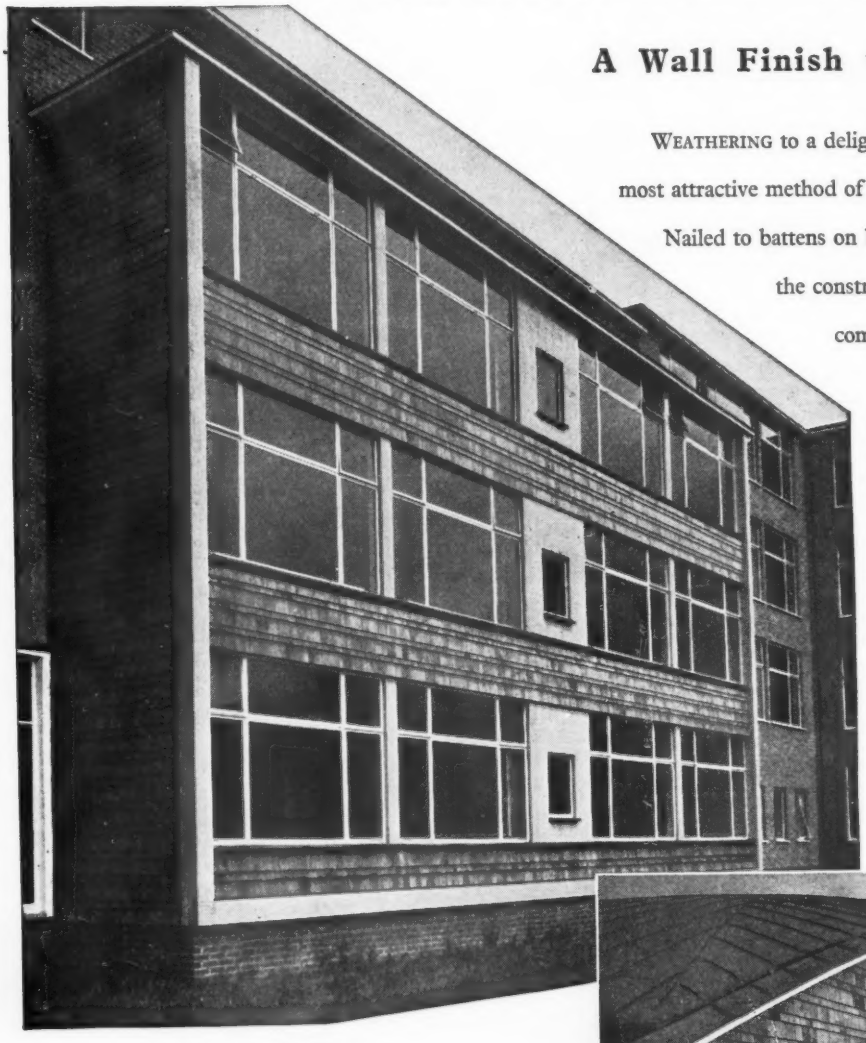

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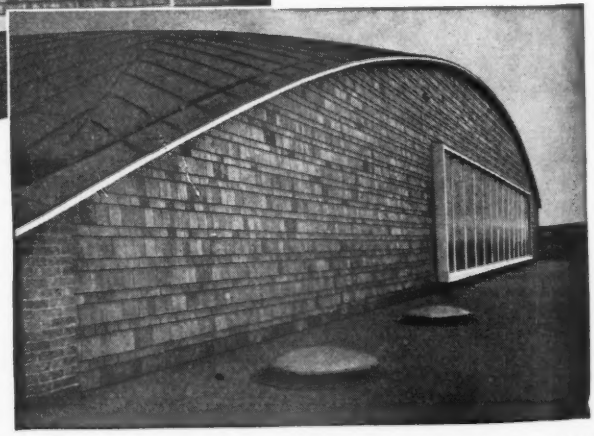

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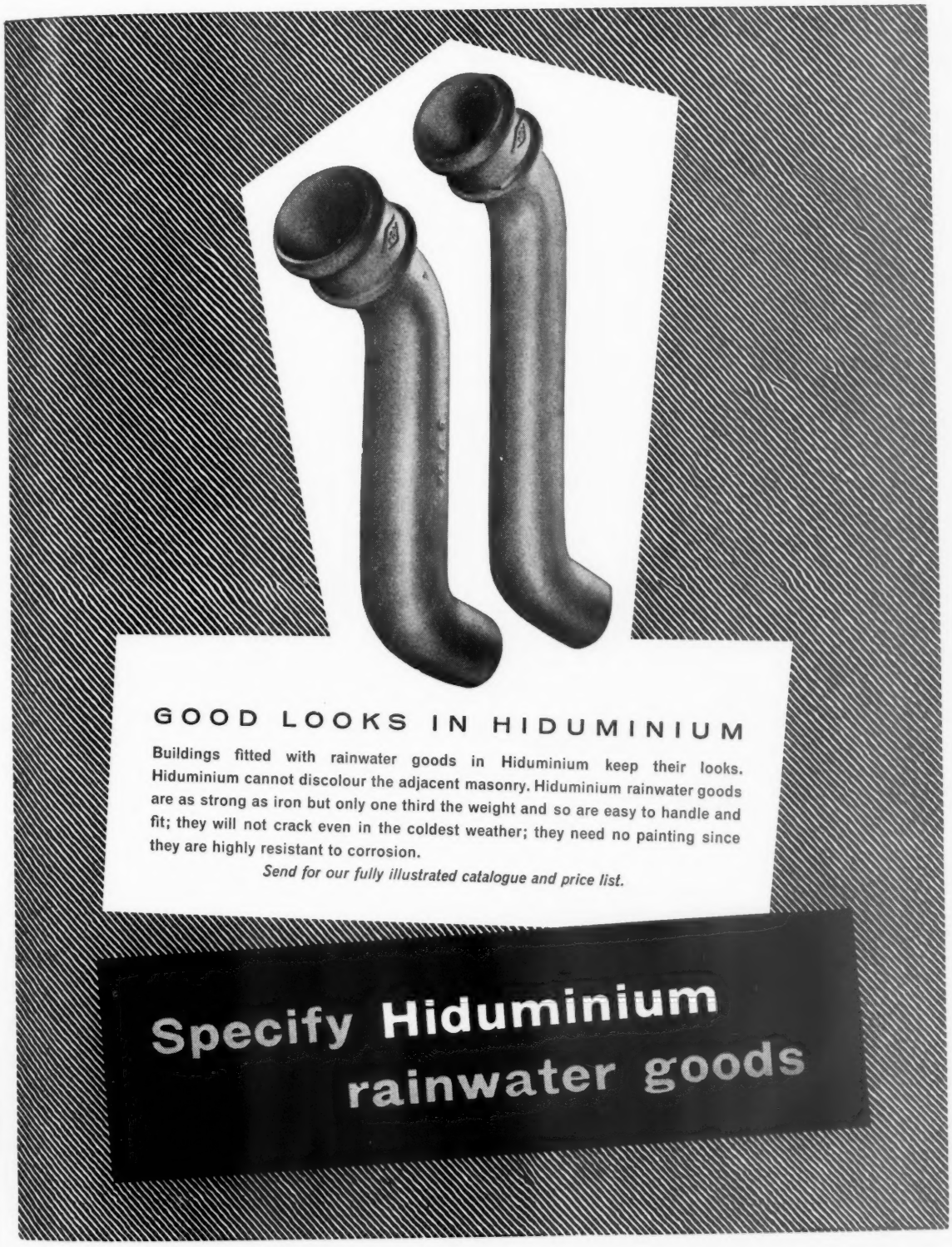
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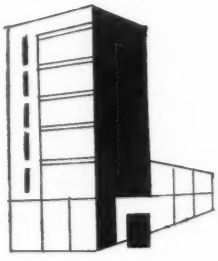

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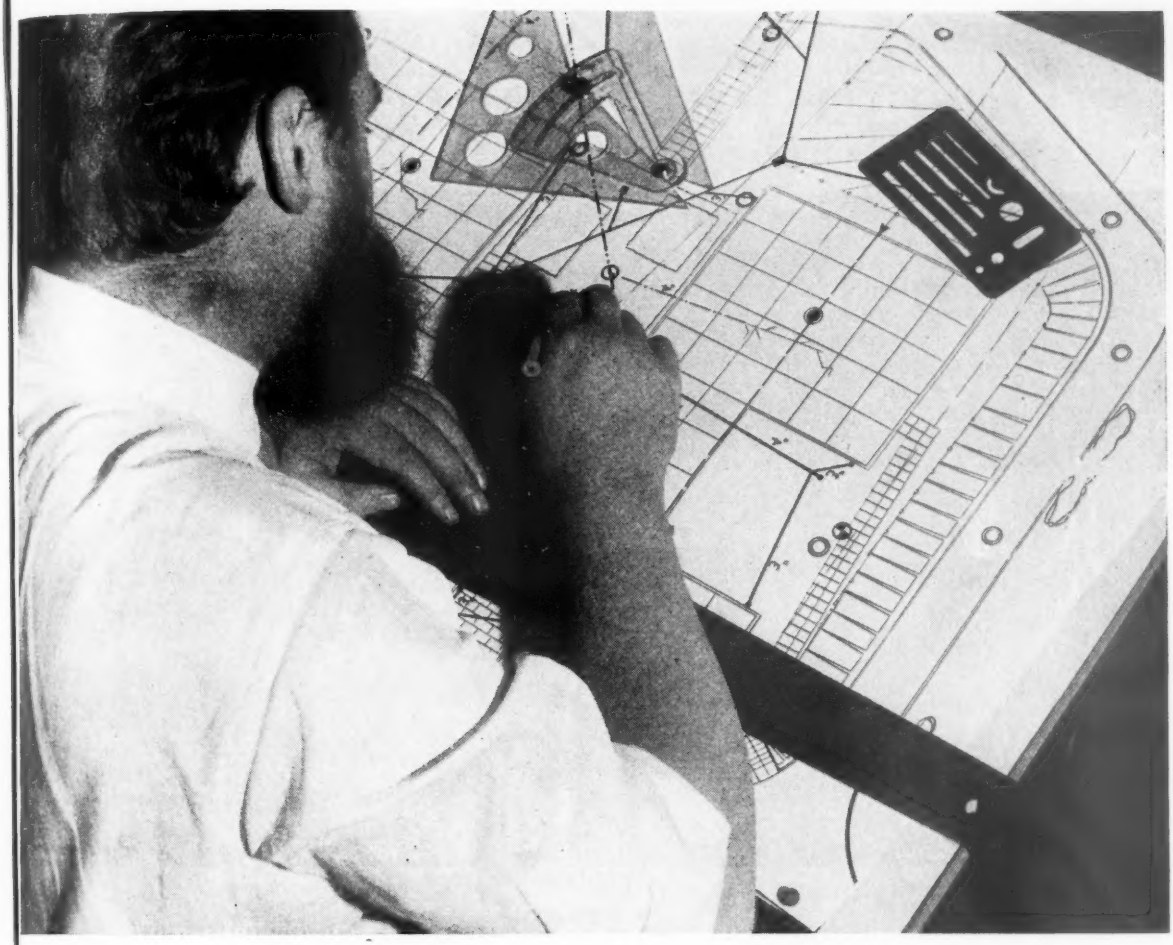

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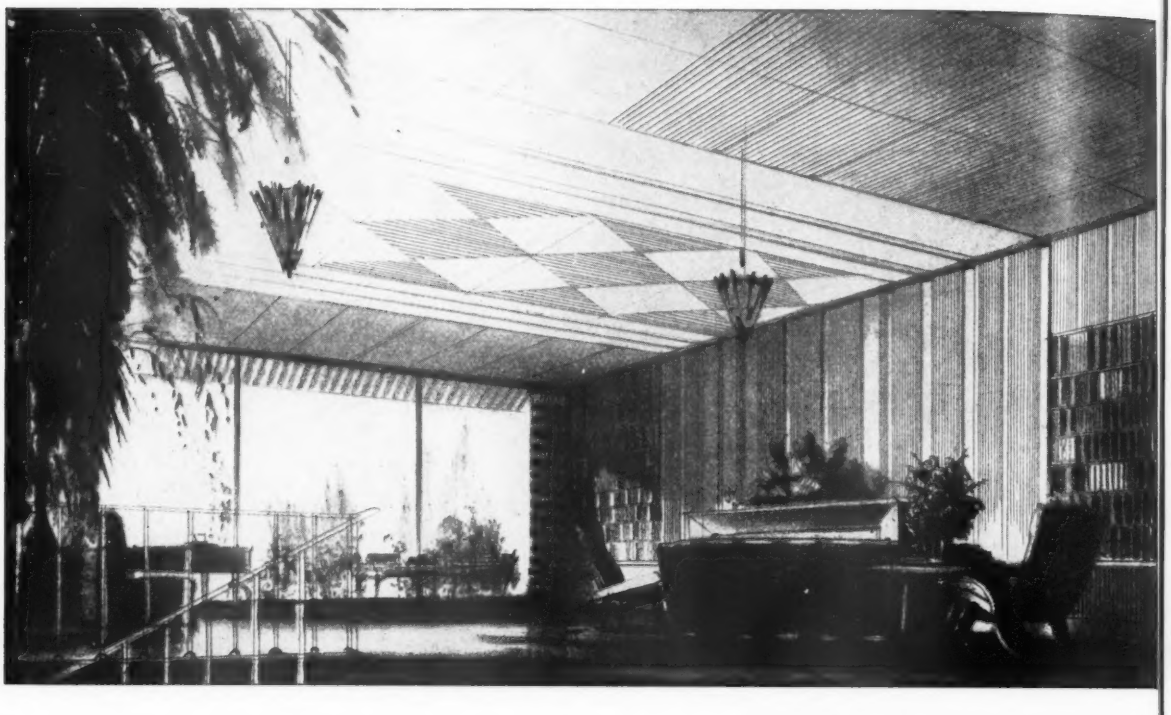

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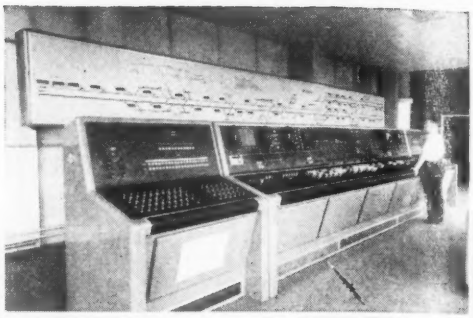

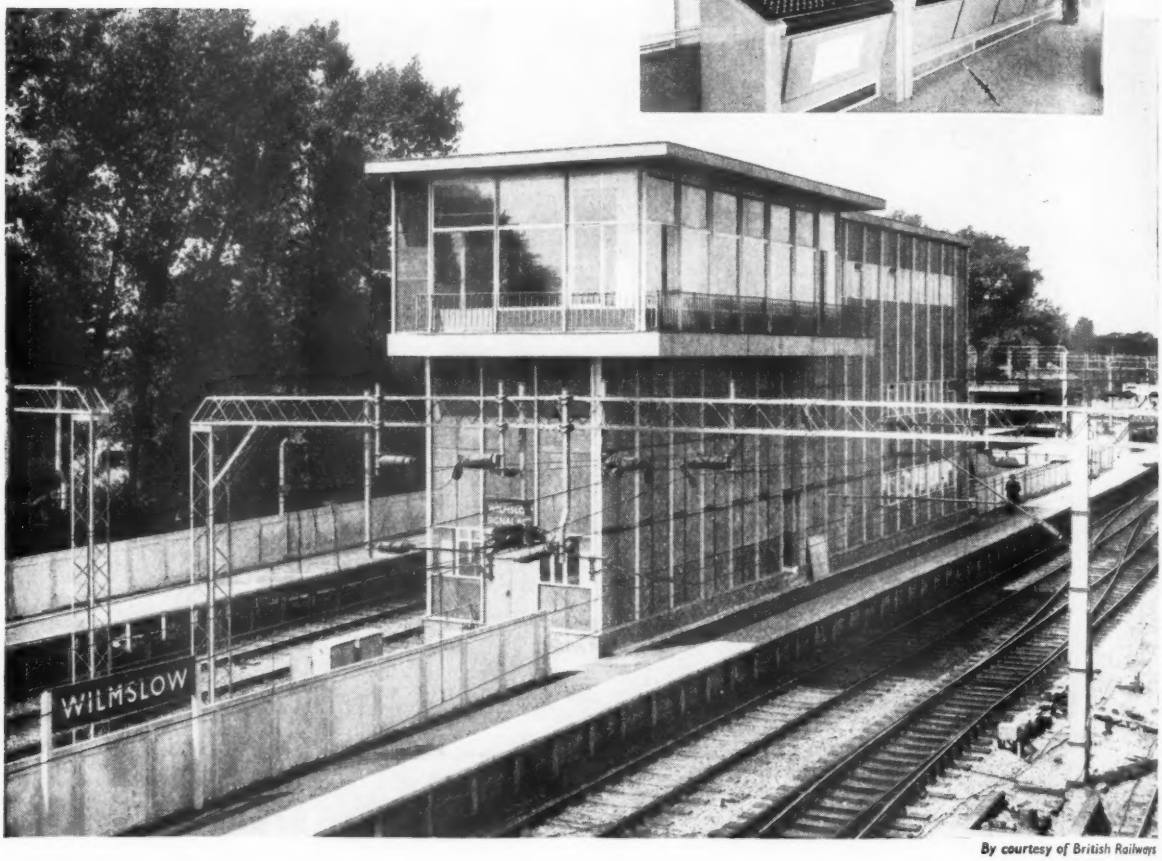

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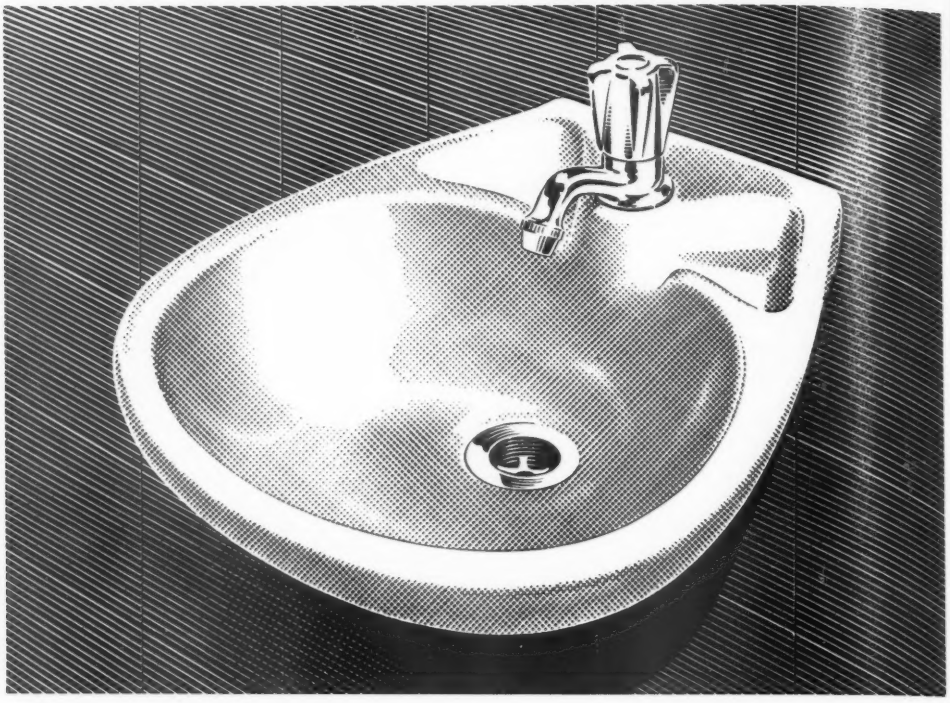

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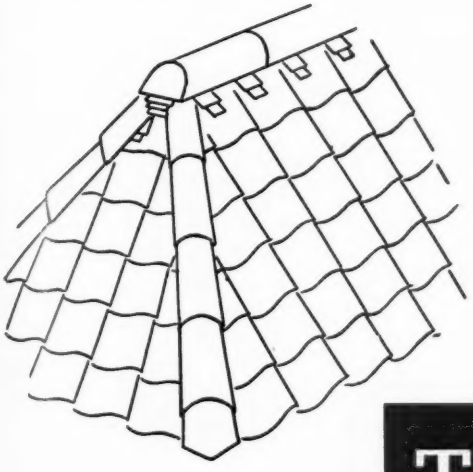

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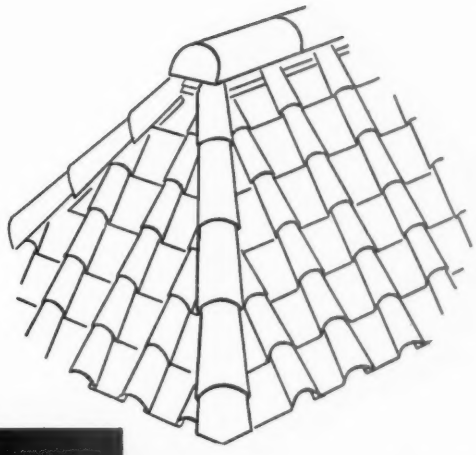

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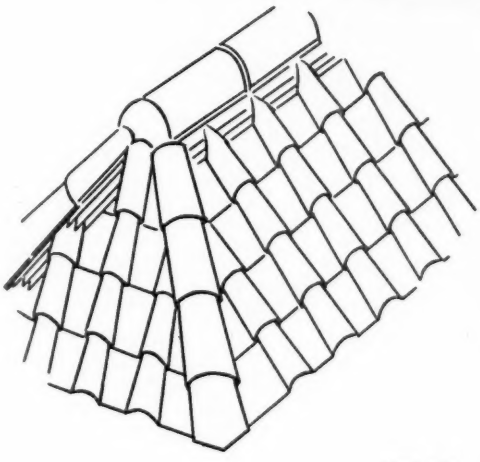

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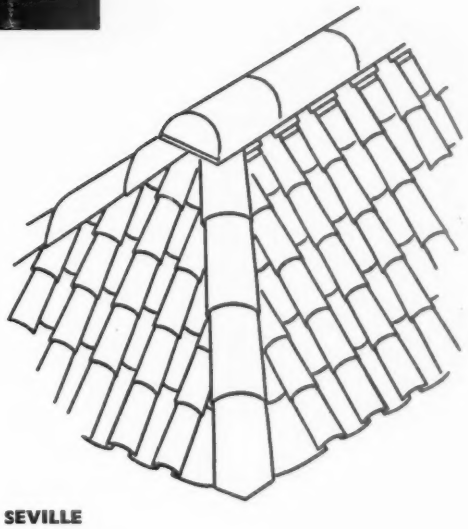

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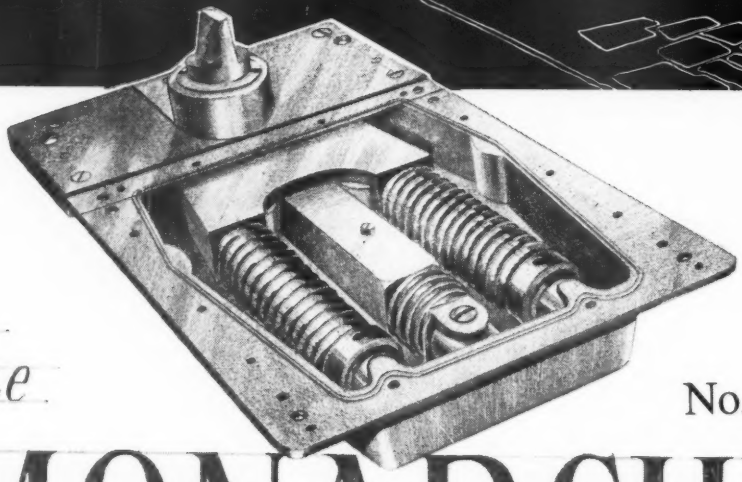

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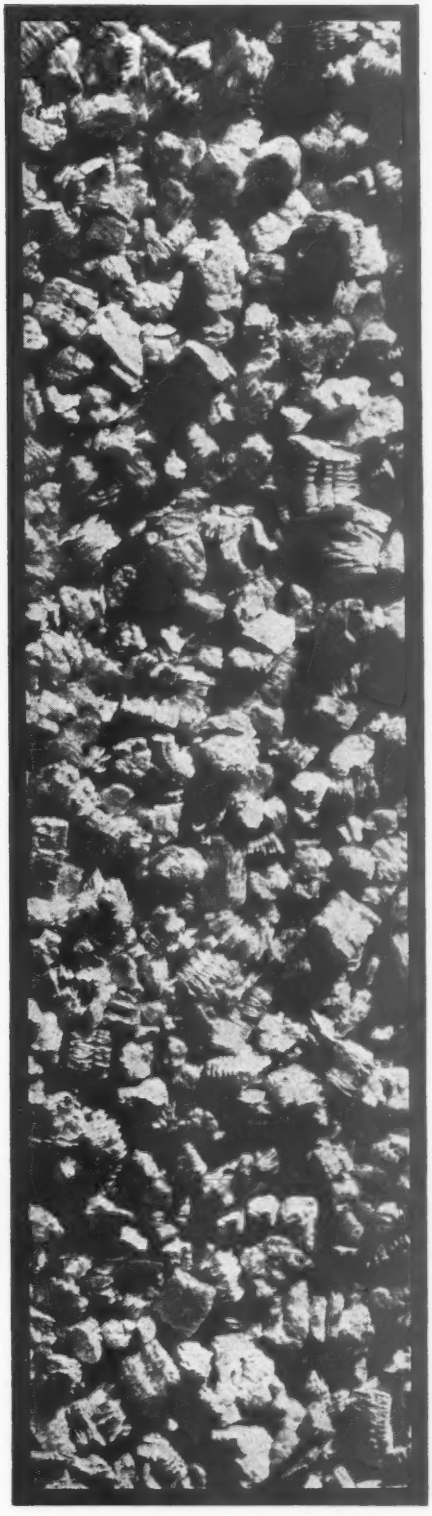

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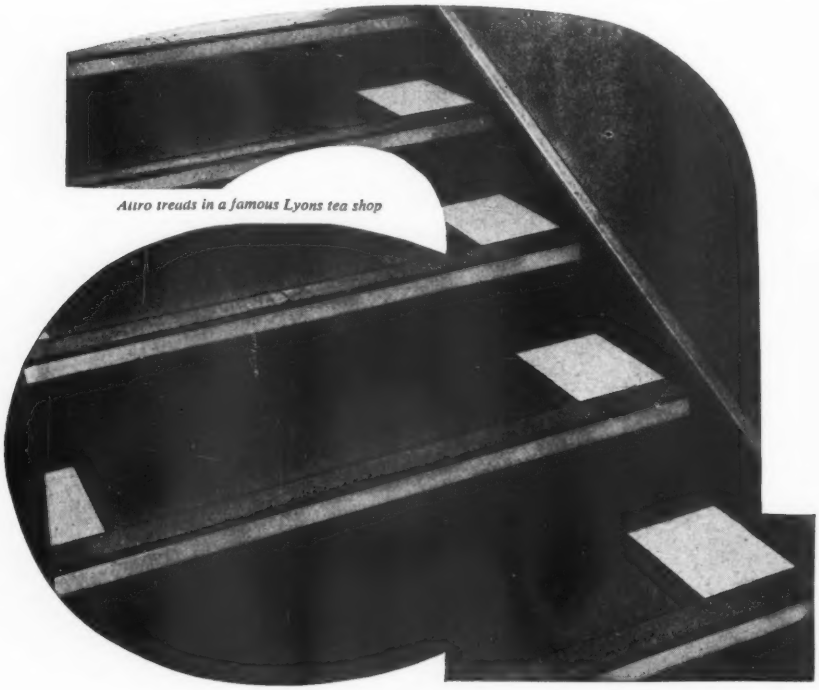

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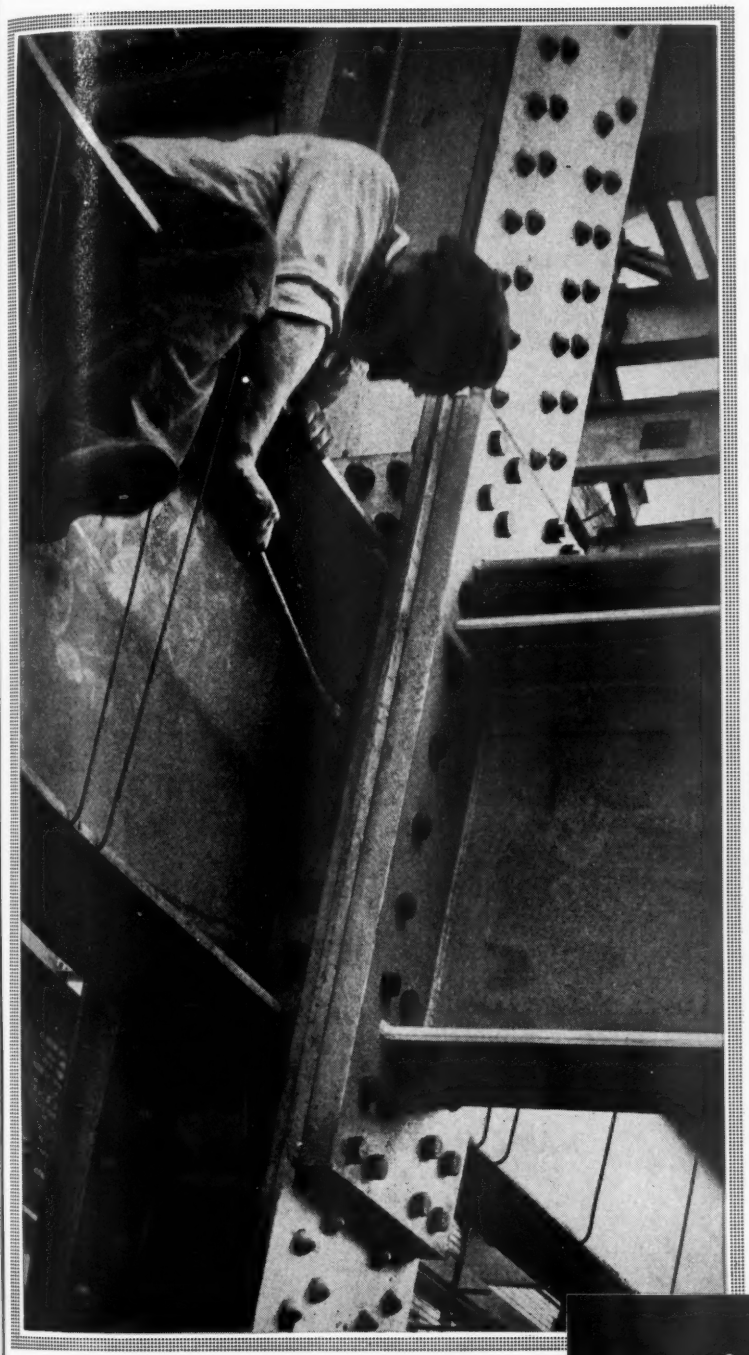

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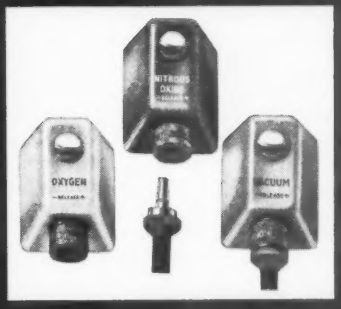

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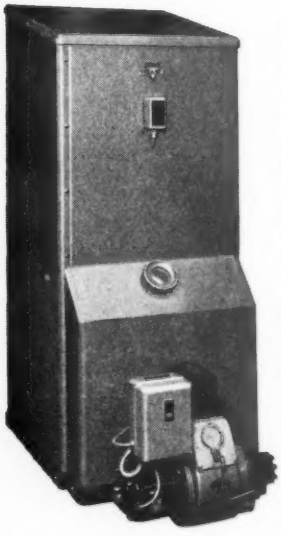

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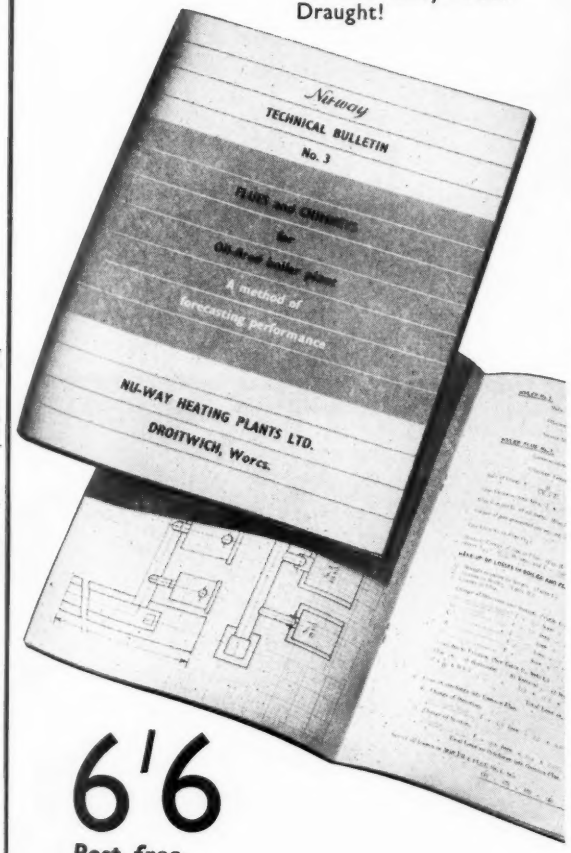

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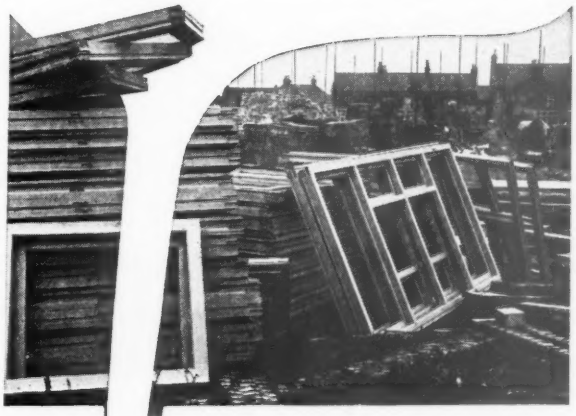

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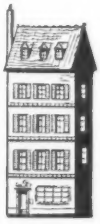

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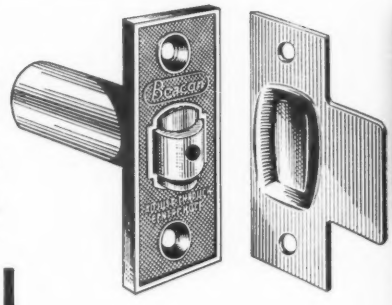

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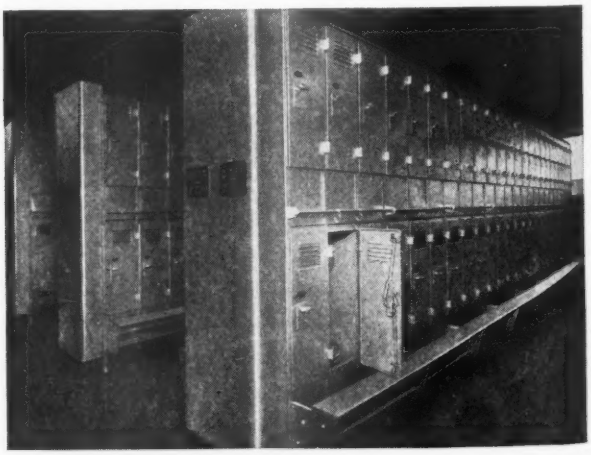

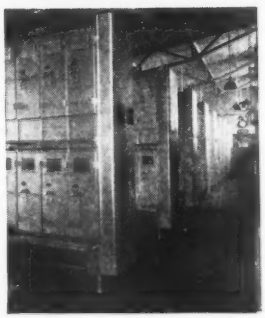

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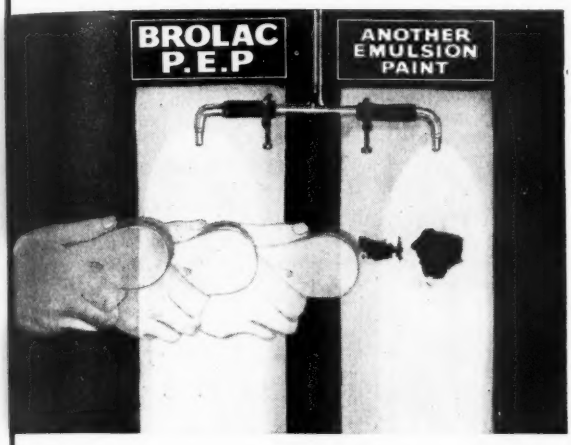

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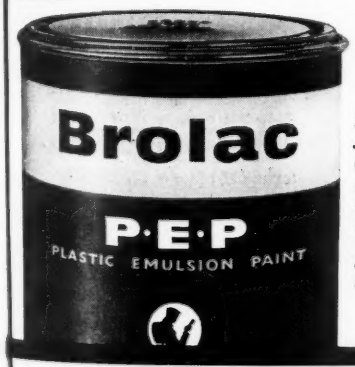

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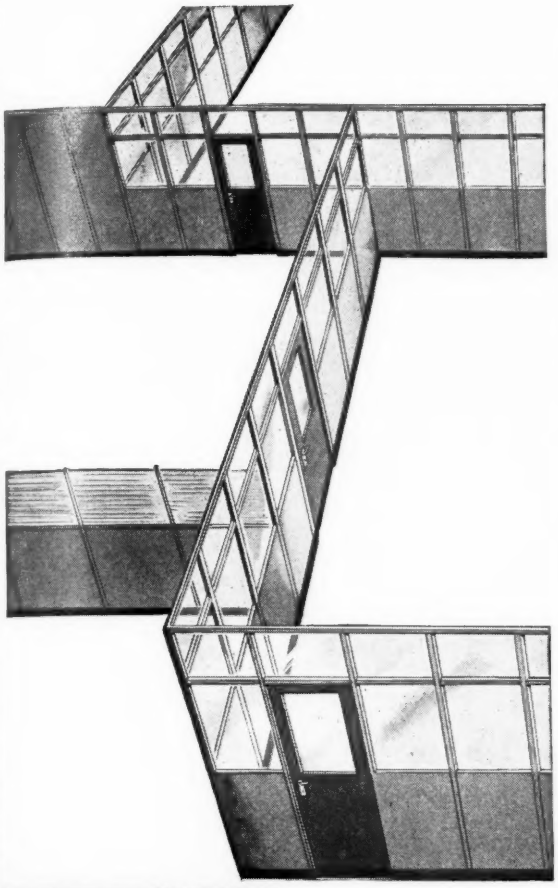

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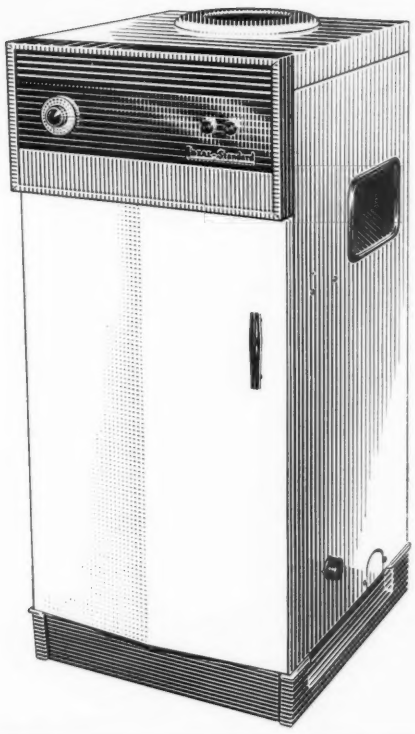

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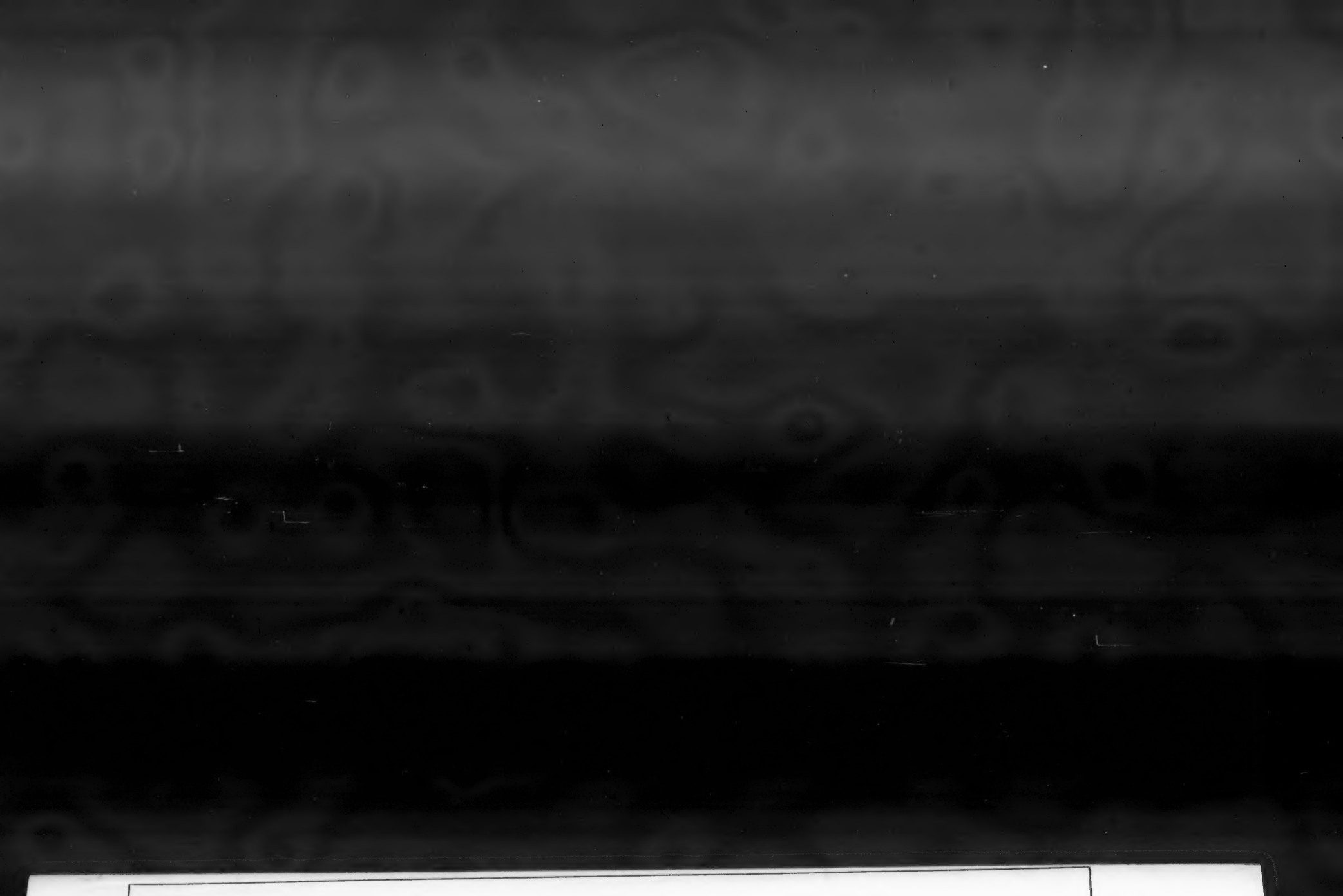
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